JPRS 79008

18 September 1981

USSR Report

AGRICULTURE

No. 1298

FBIS FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Indexes to this report (by keyword, author, personal names, title and series) are available from Bell & Howell, Old Mansfield Road, Wooster, Ohio 44691.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

JPRS 79008

18 September 1981

USSR REPORT

AGRICULTURE

No. 1298

CONTENTS

MAJOR CROP PROGRESS AND WEATHER REPORTING

Status of Grain Harvest Operations in Belorussian SSR
(SOVETSKAYA BELORUSSIYA, 22 Jul 81)........................... 1

Grain Harvest Progress in Belorussian SSR Discussed
(SEL'SKAYA GAZETA, 29 Jul 81).................................. 4

Good Harvests Predicted for Kazakhstan
(V. Torskiy; PRAVDA, 7 Aug 81).................................. 8

Kustanayskaya Oblast Copes With Grain Plan
(V. Vedeno; KAZAKHSTANSKAYA PRAVDA, 2 Sep 81).................. 10

Soybean Cultivation Examined
(IZVESTIYA, 28 Jun, 18 Aug 81)................................. 12

Major Soybean Production Areas
Article Reviewed by Ministry

Harvest Proceeding Rapidly in Aktyubinskaya Oblast
(A. Gurkin; KAZAKHSTANSKAYA PRAVDA, 6 Aug 81).................. 21

Grain Harvest Gathering Speed on Fields of Kirgiziya
(I. Masaulov; SEL'SKAYA ZHIZN', 9 Jul 81)...................... 23

Briefs
Kazakh Harvest 25
Mountain Harvest 25
A Business-Like Attitude 25
Nonirrigated Spike Crops 25

High Conditions 26
Virgin Harvest 26
High-Speed Harvest 26
Water Shortage 26
Tselinogradskaya Grain 26
Aktyubinskaya Harvest 27
A Single Conveyor 27
Turkmen Grain 27
Turkmen Corn 27
Corn Harvest 28
Grain Harvest Commences 28
Complicated Weather Conditions 28
Altay Grain Harvest 28
Trans-Urals Grain Harvesting 28
Corn Harvest Commences 28
Four Hundred Transport Complexes 29
Tambovskaya Oblast Field Work 29
Grain Thrashing Operations 29
Grain Delivery Schedules 29
Assistance for Grain Harvest 29
Organized Grain Harvest Operations 29
Grain Sales to State 30
Grain Harvest Preparations 30
Two-Stage Harvesting Method 30
Grain Harvest Nearing Completion 30
Early Ripening of Crops 30
Rapid Harvest Completion Planned 30
Ipatovo Method Employed 31
Tula Mass Grain Harvesting 31
Early Grain Harvest 31
High Field Productivity 31
Crops Sold to State 31
Complicated Grain Harvest Conditions 32
Belorussian Potato Fields 33
Lodging of Rye 33
Maneuvering of Equipment 33
Accelerated Grain Deliveries 33
Gomel'skaya Oblast Grain Operations 33
Principal Field Crop 34
Urgent Measures Required 35
Latvian Potato Procurements 35
Bryanskaya Oblast Potato Plans 35
Fifteen Tons of Early Potatoes 35
Two Potato Crops 36
Belorussian Potato Plantings 36
New Vegetable Method 36
Latvian Potato Plans 36
Potato Planting Completed 36
Early Potato Harvest 36
Progressive Potato Technology 37
Potato Harvest Commences 37
Potato Sales to State 37
Tending of Potato Crop 37
Bryanskaya Oblast Potato Harvest 37

LIVESTOCK FEED PROCUREMENT

Work on Improvement in Meadows, Hayfields in Belorussia Reviewed
(G. Rabtsevich; SEL'SKAYA GAZETA, 4 Aug 81).................... 38

Hay Procurement Plans Unfulfilled
(M. Glinka; SEL'SKAYA ZHIZN', 31 Jul 81)....................... 41

Hay Procurement, Storage Improvements Urged
(K. Solntsev; SEL'SKAYA ZHIZN', 18 Jul 81)..................... 44

REGIONAL DEVELOPMENT

Development of Agrarian Potential of Tyumen Area Advanced
(N. Chernukhin; SEL'SKAYA ZHIZN', 2 Aug 81).................... 48

AGRO-ECONOMICS AND ORGANIZATION

Agriculture's Share in National Income Production, Consumption
(V. A. Tikhonov; VESTNIK SEL'SKOKHOZYAYSTVENNOY NAUKI, Jul 81).. 52

Moldavian Private Plots Important Livestock Producers
(I. Popov; SEL'SKOYE KHOZYAYSTVO MOLDAVII, May 81)............. 66

Letters Reveal Difficulties of Private Plot Development
(O. Vlasova; SEL'SKAYA ZHIZN', 22 Aug 81)...................... 70

MAJOR CROP PROGRESS AND WEATHER REPORTING

STATUS OF GRAIN HARVEST OPERATIONS IN BELORUSSIAN SSR

Minsk SOVETSKAYA BELORUSSIYA in Russian 22 Jul 81 p 1

[Article: "We Are Carrying Out the Harvest Work Rapidly and Without Losses!"]

[Excerpts] This year's harvest operations are being carried out under somewhat unusual conditions. In a number of zones throughout the republic, the grain crops, and especially the spring grain crops, have thickened out to a worse degree than in past years. Driving rainfall accompanied by strong winds have knocked down the winter rye, wheat and barley crops over large areas. During the past few weeks, the exceptionally hot weather has accelerated to an excessive degree the developmental phases for the grain crops and speeded up the periods for commencing the harvest work.

During these hot days, the farmers on many farms in Volkovysskiy, Gomel'skiy, Buda-Koshelevskiy, Zhitkovichskiy and many other rayons are carrying out their tasks in an efficient manner.

What are the special features of the 1981 harvest campaign on the leading farms? First of all, there is high organizational ability and efficient interaction among all elements in the harvest production line. At the Kolkhoz imeni Gor'kiy in Pinskiy Rayon, the organization of the grain crop harvesting work is based upon the use of complex technological detachments, created taking into account the group use of equipment for the purpose of carrying out a complete technological cycle of operations, including stubble removal and plowing of the soil. In order to reduce to a minimum the idle time of the machines, caused by all types of breakdowns and defects, special repair teams were created at the kolkhoz and provided with the required supply of parts, units and assemblies.

The republic's grain fields are indeed vast! Thus we cannot tolerate slow or poorly organized harvest operations. On the basis of time studies, it would appear that the machine operators on a number of farms in Brestskaya Oblast are losing a great amount of time as a result of frequent breakdowns and sluggish work on the part of the repair teams and services of associations of the BSSR Goskomsel'khoztekhnika. Idle time caused by various organizational discrepancies is also being tolerated. Such facts can only serve to alarm the local party, soviet and agricultural organs. Each incident of a unit of harvesting equipment lying idle can only be viewed as a serious situation with all of the attendant consequences.

Rather than by the day, the harvest situation is changing by the hour. A gain in time equates to an overall gain in the harvest! And thus it is necessary from the very first days of the harvest work to organize the use of the combines in a manner such that the average daily output is no less than 5 hectares per unit. The quality of the harvest work must be beyond reproach!

In order to increase responsibility for the preservation of the crops grown and to plan correctly the workloads for the harvesting equipment, a determination must be made as to the biological cropping power of the grain crops on each farm and for each field. The party, soviet and agricultural organs must put an end to any evidence of formality in the carrying out of this work.

Success in carrying out the harvest work is determined to a considerable degree by the proper selection of the harvesting technology. This important problem must be solved based upon the weather conditions, the status of the crops and the availability of equipment. A very important factor is that of the timely and correct determination of the periods for commencing the harvest. Constant control must be established on each farm over the status and ripening phases for the grain crops and the moisture content of the grain determined periodically.

The grain harvesting work can be accelerated to a considerable degree through selective mowing. The dew dries out earlier in the case of grain crops grown on windblown hills and tracts and it also settles down later in the evening on such tracts. The utilization of this reserve will increase substantially the length of the working day. It bears mentioning that on such days the equipment must be operated in the field, on the thrashing floors and at the elevators to the degree that the conditions permit.

Commencing with the very first days of the harvest work, many farms have been employing the two-stage harvesting method extensively. This is an important factor with regard to shortening the harvesting periods, raising the productivity of the equipment and reducing losses. However, it must be remembered that, as a rule, the two-stage method is used for harvesting grain having a plant stand density of no less than 350 plants per square meter. Use of the two-stage method should commence at the end of the waxy ripeness period and towards the beginning of complete ripeness, at which time the moisture content of the grain is 25-30 percent and it can be mown at a cutting height of 18-25 centimeters. At no time can a considerable pause be allowed to take place between the cutting down of the grain crops and the gleaning of the windrows.

Just as in past years, the principal portion of the grain crops is being harvested this year by means of direct combining. Correct action is being taken on those farms where the grain crops are being harvested at that moment when 90-95 percent of the grain is in the phase of complete ripeness and the moisture content of the grain is 21-25 percent.

The 1981 harvest operations are widening in scope with each passing day and each passing hour. The flow of grain to the thrashing floors, receiving points and elevators is increasing. All measures should be undertaken to ensure that the grain is processed in an organized manner and without delay. For the drying of seed grain, which requires special attention this year, use should be made of all of the ground ventilation units and ventilated hoppers available on the farms.

It is very hot out on the republic's fields at the present time. The heat derives from the scorching sun and from the high degree of labor tension which reigns in the labor collectives. The personnel are displaying greater enthusiasm as a result of a number of actions -- active mass-political work on the part of the party organizations, more concern being evidenced for working and recreational conditions and efficient measures for issuing moral and material incentives. The experience of those leading farms where, commencing with the very first days of the harvest work, a socialist competition was launched to obtain high grain yields, must be supported on an extensive scale.

The harvest campaign is a difficult and responsible one. It requires great physical and spiritual strength. There can be no doubt but that the republic's farmers and those who have come to lend assistance, possess the experience, ability and energy required to pass this difficult examination in an honorable manner.

A greater quantity of grain will enrich the homeland and improve the well-being of each one of us.

7026
CSO: 1824/404

MAJOR CROP PROGRESS AND WEATHER REPORTING

GRAIN HARVEST PROGRESS IN BELORUSSIAN SSR DISCUSSED

Minsk SEL'SKAYA GAZETA in Russian 29 Jul 81 p 1

[Article: "To Win the Battle for the Grain"]

[Excerpts] The harvesting of the crop is the final and most important stage in the grain campaign. All who are participating in the busy harvest operations are confronted by a most important all-state task -- to harvest all of the crop grown as rapidly as possible and without losses. The successful solving of this task has recently been complicated considerably by unstable rainy weather which has encompassed practically the entire territory of the republic. Such weather is also expected for the first 10 days in August.

In view of the situation that has developed, all kolkhoz and sovkhoz personnel must work under very tense conditions and undertake additional measures aimed at harvesting the grain as rapidly as possible and eliminating all grain losses. Notwithstanding the complicated weather situation, these are the actions being taken by many farms in Mozyrskiy, Bobruyskiy, Kletskiy, Slonimskiy, Ivanovskiy and certain other rayons. The farms in Braginskiy Rayon are harvesting their grain crops in a rapid and efficient manner. By 27 July, the grain crops had been cut down and thrashed on an area in excess of 10,000 hectares, or 64 percent of the grain fields. A large portion of the crop was harvested using the two-stage method.

At the same time, a check carried out in the various areas has revealed that the farm leaders and specialists in many areas, while awaiting the arrival of fine weather, have been late to start harvesting their crop using the two-stage method and direct combining. Nor have they reorganized their work taking into account the unstable weather or the requirements and recommendations for the grain crop harvesting technology and organization, in keeping with this year's conditions as reported in the 16 July 1981 issue of SEL'SKAYA GAZETA. A lack of organization and sluggishness have been tolerated, not all of the harvesting equipment has been included in the work, the technical servicing of the machines in the field was not organized, the established daily routine is not being observed, large periods of combine idle time caused by organizational and other factors are being tolerated and efficient control has not been organized over the quality of the grain mowing and thrashing work or over the entire harvesting production line. Many farms are not achieving the flow line operations or harvest production line called for in the plans, nor are they maneuvering their technical and human resources depending upon the condition of the grain crops and the weather.

As a result, by 27 July grain crops had been cut down at kolkhozes and sovkhozes throughout the republic on 640,000 hectares, or 23.6 percent of the amount sown, including only 187,500 hectares harvested using the two-stage method, or 29 percent of the amount cut down. Grain crops have been thrashed from an area of 560,000 hectares, or 87.5 percent of the amount harvested.

Harvesting operations have been in progress for more than 10 days on farms in Brestskaya Oblast and yet by 27 July only 145,000 hectares had been cut down -- 36.2 percent of the amount sown. As yet, 764 combines have not been included in the work here, that is, 19 percent of the overall number of combines. Of this number, 290 combines lay idle owing to technical problems.

By no means is use being made of all of the opportunities available for harvesting the grain crops in Mogilevskaya, Minskaya and Vitebskaya Oblasts. Here the daily output per combine has been 4.7 - 3.4 hectares. The harvesting work rates are low at kolkhozes and sovkhozes in Borisovskiy, Volozhinskiy, Ostrovetskiy, Oshmyanskiy, Gantsevichskiy, Maloritskiy, Rogachevskiy, Petrikovskiy, Kruglyanskiy and other rayons.

There have been cases of many combines lying idle owing to minor defects. For example, of 134 combines in Glusskiy Rayon, up to 30 units lie idle daily because of such defects. On the day that a check was carried out at the Kolkhoz imeni Kalinin, only 5 of 11 combines were engaged in harvesting the grain. A mechanized detachment consisting of seven units, attached to the rayon association of Sel'khoztekhnika, was not in operation. The two-stage method for harvesting grain crops is being ignored on the majority of the farms. Of 14 harvesters that are available, no more than 3-4 are being used for the mowing work.

Large grain losses are being tolerated out on the fields of some kolkhozes and sovkhozes as a result of poor quality harvesting work and failure to carry out the proper adjustments and hermetically seal the combines. It was precisely for this reason that great losses occurred in the harvesting of barley at the Kommunar Sovkhoz in Dokshitskiy Rayon.

All of these facts tend to indicate that not all of the sovkhoz agronomists and engineers are exercising proper control over the harvesting operations or the complete preservation of the grain. Some of them are tolerating sluggishness and lack of organization and this often leads to disruptions in the technology and in the normal rhythm for the entire harvesting production line. This of itself could explain the fact that at the Oktyabr' Kolkhoz in Berezovskiy Rayon, owing to a lack of administrative ability on the part of its chairman and chief specialists, five combines went out onto the fields at 1030 hours. The harvesting work was carried out using non-adjusted machines and, as a result, a large quantity of grain remained in the straw. Time studies carried out on the work of these combines revealed that, owing to technical and organizational problems, they were each idle 5 hours on this day, or practically one half of the working time.

Such an attitude towards the work cannot be tolerated. The party, soviet and agricultural organs in the various areas and the farm leaders and specialists must analyze the situation thoroughly, expose the causes and omissions and undertake immediate measures aimed at correcting them. A requirement exists for raising the responsibility of the personnel for making complete use of all potential and logistical resources, for harvesting the grain in a rapid manner and preventing losses, for achieving the correct arrangement for all forces and technical resources and for the efficient organization of labor, for shortening the working time to the maximum possible degree and for making extensive and creative use of the diverse harvesting means and methods.

In the case of ripe crops, particularly winter rye, use should be made of the two-stage method for harvesting grain crops. This method makes it possible to increase the productivity of the equipment and to shorten the harvesting periods. The two stage method should be employed in those areas where the crops have lodged or become overgrown with weeds. During inclement weather, the grain crops should be harvested using the selective method, with full advantage being taken of each good hour of time. In addition, the equipment should be maneuvered and maintained in constant readiness at the work sites, in the field. When harvesting damp grain crops, the glume and straw should constantly be removed from the sieve boot and other organs of the combines, so as to ensure good separation of the thrashed heap and the prevention of grain losses. Measures should immediately be undertaken aimed at ensuring around-the-clock operation of the grain thrashing floors, dryers and forced ventilation hoppers and also use of all of the drying equipment available at the kolkhozes, sovkhozes and grain receiving enterprises for processing the grain.

Industrious and highly productive work by the machine operators is of paramount importance at the present time. This is why the party organizations and farm leaders and specialists must utilize fully the experience accumulated by innovators and leading harvest workers, who are to be found in each rayon and on each farm, and introduce this experience into the operational practice of each crew in all areas.

The shortcomings noted in the use of equipment must be corrected immediately and the duration of the net working time of each combine and harvester must be raised to no less than 10-12 hours daily. An important reserve for raising the productivity of the combine units is that of employing double-shift operations for the combine operators -- with the operators being changed periodically throughout the working day.

The BSSR Goskomsel'khoztek and the kolkhoz and sovkhoz leaders and specialists must organize the technical servicing of the equipment directly out on the fields.

By way of displaying special concern for next year's harvest, extreme importance is being attached at the present time to launching extensive preparations for the timely and high quality carrying out of the winter sowing work. Towards this end, each kolkhoz and sovkhoz must ensure that the preceeding crops are removed from the fields in a timely manner and that organic and mineral fertilizers are applied and the fields plowed. This work should be carried out in a manner such that the preparation of the winter crop sowing areas is completed in all areas by no later than 15-20 August.

During this exceptionally important period, when the fate of the first harvest of the new five-year plan is being decided, all organizational and political work by the party organizations must be subordinated to mobilizing all of the agricultural workers, their expertise, energy and experience in the interest of the successful completion of the busy harvest season and the complete preservation of the crops grown.

7027
CSO: 1824/404

GOOD HARVESTS PREDICTED FOR KAZAKHSTAN

Moscow PRAVDA in Russian 7 Aug 81 p 1

[Article by V. Torskiy (Chimkentskaya Oblast): "Gratifying Grain Fields"]

[Excerpts] The harvest is continuing on the expanses of southern Kazakhstan. The mowing has been completed in the steppe regions. The main forces are concentrated on the threshing floors and in the shipment of the grain. But the grain continues to be gathered in the foothill regions.

The first secretary of the Chimkentskaya party obkom, A. Askarov, comments:

The large threshings that farmers of many kolkhozes and sovkhozes are receiving are the result of the their painstaking work throughout the entire year. The farms of the oblast have planted almost all of the grain fields with the most productive strains of winter crops for our conditions and used seeds of high planting conditions.

The harvesting equipment is more productive this year. The farms of Bugunskiy, Kelesskiy, Saryagachskiy, Pakhtaaral'skiy and Chardarinskiy rayons gathered the spike crops in 10 days. The party obkom supported the initiative of the leading combine operators who resolved to use the machines 20 hours a day.

Agreements for cooperation among farmers, transportation workers and procurement workers have become widespread in the republic. The collective of the cargo automotive administration delivers grain to the elevators on an hourly schedule, which has reduced the idle time of the vehicles. And the workers of the Chimkent division of the Alma-Ata railroad have introduced a system of high-speed handling of the trains and loading and unloading work. About 30,000 additional cars have been released.

All farms are striving to follow the first commandment of the grain grower: to successfully cope with the plan for the sale of grain to the state. Under the Tenth Five-Year Plan Chimkentskaya farmers fulfilled the assignment for grain procurements. This year there is a possibility of delivering grain in excess of the assignment. More than 425,000 tons of grain have already been shipped to the receiving points--considerably more than was intended. Words of praise should be given to the masters of the grain fields of Algabasskiy, Lengerskiy, Turkestanskiy, Tyul'kubasskiy, Bugunskiy and Leninskiy rayons who have already overfulfilled the annual assignments.

At the same time, however, we have farms which are in no hurry to deliver the grain and utilize loading and unloading equipment and trucks poorly. Communists can not let cases like this go unattended.

The farmers are also concerned about the next crop. In particular, they are developing measures for increasing the productivity of the arable land. Machine operators are plowing after the harvesting equipment has passed. This makes it possible to retain the moisture in the soil.

11772
CSO: 1824/419

MAJOR CROP PROGRESS AND WEATHER REPORTING

KUSTANAYSKAYA OBLAST COPES WITH GRAIN PLAN

Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 2 Sep 81 p 1

[Article by V. Vedeno (Kustanayskaya Oblast): "On the Eve"]

[Text] Grain growers of Kustanayskaya Oblast, the largest grain bin of the republic, have committed themselves to harvesting more than 5 million tons of grain for the first year of the Five-Year Plan. They have resolved to sell more than 3 million tons of it to the state. Such is the scale of grain production in the oblast: while the republic is striving to make a billion poods their annual sales norm, Kustanayskaya workers want to make this their five-year assignment.

The wind died down after noon. The sky became dark. Toward evening a storm front, clearly defined like a decoration, moved in, embracing the steppe in a half circle. The oblast has waited long for the rain which is so necessary during this summer period for the spikes to fill in to their full weight.

But it only fell on several individual regions. This year, because of the alternation between heat and rain, the grain varies even on the fields of a single farm. In some places the main stalk of the wheat plant is burnt, while in other places, after abundant rain, it has begun the so-called regrowth.

"The situation is difficult," said the concerned first secretary of the Kustanayskaya party obkom, V. P. Demidenko. "One cannot count on the kindness of nature. And so it is even more important to be fully prepared for the harvest and gather the grain down to the last spike. This is the goal of the oblast party organization of communists, agricultural workers and everyone who is involved with the grain."

Kustanayskaya workers have long been able to cope with the harvest by themselves, without help from combine operators from other areas. It is too costly to invite people from the other end of the world. It is more difficult without help from outside, of course, but they have decided to count not on quantity, but on the quality of their work and organization. At the beginning of the last five-year plan the oblast made a change to team organization of the labor of the machine operators. There are now 4,000 harvesting teams here. Each of them includes three to five combine operators and one or two assistants. The amount of idle time of the sets of equipment has decreased because of this. The combine operator has more work, but it is easier to do. The output per combine has increased considerably and the fleet of machines has been reduced by 100 units. We now devote more attention to those who remain. By the middle of July, approximately a month before the usual time of the beginning of the harvest, the farms of the oblast already have 84 percent of the combines ready--more than 14,120 of them. This is a thousand more than were ready by this time a year ago.

Preparing for the harvest is problem number one. When the surveys showed serious arrears in the restoration of harvesting equipment in Naurzumskiy Rayon, the deputy chief of the oblast sovkhoz administration, G. I. Sochnev, went there on temporary duty. He toured the farms with the local leaders and specialists and studied the situation. The rayon is not as well provided with machine operator personnel as the others. Therefore more combine operators who had been trained at industrial enterprises were sent here. The repair work was speeded up as a result of this. But the farms do not have enough spare parts. The sovkhoz administration showed us a list of the spare parts that were in shortest supply, the lack of which holds up the repair work. It included two dozen parts--shafts, screws, drive belts. The republic Goskomsel'khoztekhnika filled the order for certain spare parts by only one-fourth, one-third or one-half.

This list would have been even longer were it not for the help of industrial enterprises of the oblast, mainly repair and mechanics shops: the Rudnenskiy manufactures screw pins, the Lisakovskiy--grate frames, the Kustanayskiy--regulator pulleys, the Dzhetygarinskiy--nylon-6 castings . . . and this forced "independence" costs a pretty penny.

The republic Goskomnefteprodukt is also letting the grain growers down. It fulfilled the semiannual plan for deliveries of, for example, diesel oil precisely, by 100.3 percent. But it shipped winter lubricants for times that the machine fleet of the farms of the oblast never needs at all, neither in cold nor in hot weather. According to the plan, more than 5,000 tons were to be oils of Group G for the high-powered Kirovets and Niva engines, but only half of this amount was received. What kind of work can the grain conveyor do without enough lubricant?

During these days we had occasion to travel through many farms of the oblast and meet with machine operators, specialists and managers. They are now solving two main problems everywhere: procurement of feed and preparation for the grain harvest.

11772
CSO: 1824/419

MAJOR CROP PROGRESS AND WEATHER REPORTING

SOYBEAN CULTIVATION EXAMINED

Major Soybean Production Areas

Moscow IZVESTIYA in Russian 28 Jun 81 p 2

[Article: "Soybeans--A Promising Crop"]

[Text] At the 26th CPSU Congress priority was given to the development and implementation of a foodstuffs program as well as to a number of other complex programs dealing with the most important socio-economic problems in the country.

Our main goal is to secure the uninterrupted supply to the population of products which are needed most, primarily meat and milk.

A course for the accelerated growth of livestock production output has been determined. Today livestock raising, as the leading branch of agriculture, comprises the shock front. In his speech at the ceremonial conference in Tbilisi Comrade L. I. Brezhnev said, "The key factor in improving livestock raising is the strengthening of the feed base. Within this sphere this five-year plan must become the five-year plan of feed production."

The country's enterprises are making every effort to procure as much feed as possible already during the first stage of the long and intensive feed-production season. Not only the quantitative, but the qualitative aspects of procurement are being considered. It is very important to make a noticeable step forward in solving the protein problem. With this goal in mind the country's enterprises have already expanded the area in grain-forage crops. Very serious attention should be given to cultivating high-protein crops and the very promising soybean crop. The area in soybeans is increasing and some good experience regarding its cultivation has been amassed. But naturally there are problems as well which must and can be solved quickly.

Today we are presenting the readers with reports from the major soybean production areas.

I. Evaluation According to Harvest Yield

For the last 10 years, since the arrival of Dnepr water, Crimean farmers have rarely complained about the weather. In previously waterless and dry regions production has become stable and has increased the people's confidence in the great abundance of the land. At the present time in the oblast irrigated lands occupy over 300,000 hectares. This is only 18 percent of the agricultural lands. They produce about 60 percent of the gross grain yield in farming, one-fourth of the grain, 93 percent of the vegetables and half of the feed.

As a result of moving feed production to irrigated areas it has not been necessary to increase the amount of land in feeds during the last 15 years. Meanwhile, feed production has more than doubled. During this time milk procurement increased by a factor of 1.7; meat--2.8; and eggs--4.8. During the 10th Five-Year Plan planned productivity was reached on the entire area sown in grains, pulse crops, corn, soybeans and vegetables.

Soybeans have become one of the key factors in the success of farming and livestock raising. Soybeans are a good predecessor in crop rotations and an excellent feed for livestock, as has been convincingly proven by the many years of experience of Crimean farmers. Its seed contains 38-43 percent protein and 1 ton of protein is produced per hectare when productivity is 25 quintals per hectare. Winter crops that are sown after soybeans produce an increase in yield of 8-10 quintals.

In the Druzhba Narodov Kolkhoz of Krasnogvardeyskiy Rayon this year soybeans were sown on an area of 1,500 hectares of irrigated lands. Ten years ago it began with 25 hectares producing an average of 9 quintals per hectare.

Last year yield exceeded 24 quintals, and today no fewer than 25 are planned. This is how this great crop revealed its possibilities and how the farmers who today are completely versed in the art of cultivating it became convinced of its potential.

"We have a large broiler factory and a large dairy herd," says the kolkhoz chairman, A. Kalinechenko, "and with such large-scale livestock raising it is not enough to just have sufficient amounts of feed. We need high-quality feed that is balanced in all nutritional elements. Soybeans enable us to do this."

Krasnogvardeyskiy Rayon holds the challenge Red Banner of the Krymskaya Oblast party committee of the Ukraine and of the executive committee, awarded for large soybean harvests. Following the example of the workers of Cherkasskaya Oblast, the rayon's livestock farmers have pledged to increase the production of meat by 13 percent and of milk by 9 percent on the average during each year of the 11th Five-Year Plan. As specialists have calculated, in order to do this it is essential to double the production of soybeans and to increase production to 15,000 tons.

Already this year this has been the approach in the Rossiya Kolkhoz, for example. The cultivation of soybeans was begun here only 3 years ago. At that time there were 50 hectares of basic and 70 hectares of repeat crops and the productivity was 23.5 and 19.5 quintals per hectare respectively. Last year soybeans already occupied 550 hectares and today they occupy 1,000.

"Industrial technology has become fundamental in the soybean fields," says the chairman of the Rossiya Kolkhoz, V. Krivorotov. "Progressive agrotechnology in coordination with a high level of mechanization exclude manual labor and solve the main problem, that of producing a larger harvest of a better quality with the smallest possible expenditures."

The kolkhoz has clearly developed the methods for cultivating soybeans. As a rule, they are sown following winter crops. After harvesting two-track discing is performed, stubble remains are ground and favorable conditions are created for the growth of weeds. The planning of the surface and the introduction of mineral fertilizers follow. The rate for phosphorus fertilizer is 40 kilograms of active substance per hectare; nitrogen--50 kilograms. Each field in the crop rotation receives concentrated doses of organic fertilizer every 4-5 years, usually applied to the crop that precedes soybeans.

The application of treflan is the most responsible operation of the industrial technology. It is performed by special detachments. The required technology for equipping them does exist. The plan is to cultivate 100-110 hectares daily, providing a front for the sowing unit. The following is the technology for stubble crops. After the harvesting of winter barley for grain the stubble fields are disced in two tracks, and soybeans are sown immediately with an interrow of 70 centimeters.

The irrigation regiment is monitored by the soil radiation balance gauge of the candidate of agricultural sciences, P. Tishenko. Thanks to him the water is utilized efficiently, working fully toward the harvest. The relatively simple equipment determines the irrigation regiments for soybeans, corn and alfalfa. The automatic meteorological post provides data on total evaporation within a radius of up to 50 kilometers.

For soybean farmers the most intensive stage in the struggle for the harvest is the harvesting operations. By the end of August machine operators reequip their combines and eliminate all channels through which losses can be incurred. There must be a minimal cutting height and a maximum number of revolutions of the threshing drum--no more than 500 per minute. Practical experience has shown that the best results are achieved by the Niva combine--the cut is lower, the threshing mechanism operates well and there are fewer damaged seeds. Usually up to 20 combines are allocated for harvesting soybeans. The most experienced machine operators drive them. The system of wage payments has been precisely determined. One ruble is added for each hectare that is harvested; 4 kopecks--for each quintal of grain that is threshed using the SK-6 combine. Additional payments can also be made in grain or through bonuses.

Industrial technology for cultivating soybeans and their highly effective use for feeding to livestock have become guiding principles for many enterprises in Krymskaya Oblast. Last year soybeans occupied over 12,000 hectares. With an average productivity of 16.7 quintals per hectare gross yield comprised about 22,000 tons. At the present time 60 links in all rayons of the oblast are fighting to produce 25 and more quintals of soybeans per hectare.

II. Methods of Enriching Feed

Last spring was probably the most alarming for brigade leader Ivan Aleksandrovich Onofrey of the Zarya Kolkhoz, Kriulyanskiy Rayon, Moldavia. He already has a great deal of experience, having been a farmer for over 20 years. He cultivated corn well, producing 70-90 quintals of grain per hectare during some years. However, in recent years he has been involved primarily in soybeans. The kolkhoz has a large dairy herd--900 forage cows. It is not an easy thing to feed them. However, it is not enough to simply feed the animals, it is also important to achieve a large milk yield. As we know this cannot be achieved unless the rations are well-balanced according to protein and amino acids. This is when specialists suggested complete involvement with soybeans.

They began with a small plot of 15 hectares. They prepared the soil well, completed sowing operations on schedule and cared painstakingly for the crops. The soybean did not let them down. During the first year a yield of 15 quintals per hectare was produced on dry-farming land. This was not a record harvest, of course, but it was more than adequate. After all other enterprises were producing 10-12 quintals at the same time.

During the next year the plot increased to 40 hectares, and in the year after that--to 50. The yields increased gradually. Another problem arose--there was a shortage of workers for weed control, and without it the fields became infested with weeds. An answer had to be found, and was.

Three years ago the brigade of I. Onofrey was one of the first in the republic to be able to use industrial technology in cultivating soybeans. The farmers were supplied with the necessary herbicides, mineral fertilizers. The members of the brigade reequipped the existing machinery themselves and expanded the soybean fields to 80 hectares. The results were excellent--an average of 22 quintals per hectare were produced, with an even larger yield the following year.

This was achieved without irrigation, without additional expenditures for cultivating the interrows and without weed control. The benefits were evident and reassuring. However, the labor of a grain farmer is always connected with the unexpected. This is what happened last year. Prolonged fall rains almost destroyed the soybean crop completely, as it turned out to be extremely sensitive to bad weather--the roots rotted rapidly.Only through the energetic efforts of the brigade was it possible to salvage the surviving harvest. This disappointed the brigade leader very much.

"Upon our request," said Ivan Aleksandrovich, "the kolkhoz administration acquired elite seed of a new highly productive, weather-resistant Moldavian variety--Bel'tskaya-25--which was developed by breeders of the Selektsiya NPO [Scientific-Production Association]. In the fall mineral and organic fertilizers were applied on the entire 100-hectare plot and plowing was completed in excellent time. In the spring the fields were levelled with toothless drag harrows and herbicides were applied prior to sowing.

"The best machine operators were assigned the job of sowing. We will make every effort not to incur losses and to fulfill our obligations--to produce an average of 22 quintals of dry soybeans per hectare."

Before my departure I asked the chairman of the kolkhoz, G. I. Golovatyy, to tell me what specific advantages the kolkhoz derives from cultivating soybeans. In response he presented me with convincing figures.

In those groups of dairy cows receiving soybean oil-seed meal (which is produced, incidentally, in the kolkhoz's own butter churns) the daily milk yield is 1.5-2 kilograms higher as compared with control groups and the fat content in the milk reaches 4 percent instead of the usual 3.6-3.7 percent.

"Thus," summarized Gavriil Ivanovich, "during the summer period simply by doing this we produce an additional 400-500 kilograms of milk daily. For this reason we have one of the highest rates of milk production per 100 hectares of agricultural lands. In addition we annually produce several quintals of highly-nutritious soybean oil."

Many other kolkhozes and sovkhozes in the republic have come to understand the enormous advantage of soybeans. The enterprises of Brichanskiy, Dondyushanskiy, Glodyanskiy, Yedinetskiy, Kaushanskiy and a number of other rayons have completed sowing operations in an organized manner and on a high level, having significantly surpassed their quotas.

Unfortunately, this attitude towards the sowing of this valuable crop was not prevalent everywhere, particularly not in Drokiyevskiy, Vulkaneshtskiy, Grigoriopol'skiy and Komratskiy rayons. Reserves for increasing the protein content of feeds and for improving the quality of livestock rations were not utilized in a number of rayons due to the poor organizational work of local economic organs.

Usually the directors of these enterprises point to the unfavorable weather conditions. However, we should remember the wise saying, "Those who strive to accomplish something do succeed, whereas those who do not strive seek excuses."

III. Sometimes A Dense Crop Stand, Sometimes No Crops at All--Why?

In Odesskaya Oblast farmers began to deal seriously with soybeans 4 years ago. Whereas in 1976 588 hectares were allocated for this crop, by the next year the area expanded sixfold. Today soybean plantations cover 11,000 hectares. There have also been qualitative changes in the cultivation of this valuable crop. In 1977 each hectare produced 6.5 quintals of beans; in 1977--12.1; in 1978--13.2; and in 1980, which was a very unfavorable year for soybeans in the southern Ukraine--11 quintals. The expansion of fields and the rise of productivity enabled us to sharply increase gross soybean production. During the five-year plan gross output increased from 428 to 10,632 tons.

It began with the assignment of two so-called experimental farms to develop a technology and organization for supplying the oblast's kolkhozes and sovkhozes with good seed. The enterprises which were selected were the economically strong Progress Kolkhoz of Izmail'skiy Rayon and the Ukraina Kolkhoz of Kiliyskiy Rayon, directed by Heroes of Socialist Labor N. Myndr and N. Muzyka respectively. Bulgarian specialists were invited to share their experience, and not only verbally, but practically, in the fields, during the spring field operations.

During the first year the Progress produced 24 quintals of beans per each of 200 hectares. Productivity continued to grow in the enterprise, reaching 32.5 quintals last year. In the Ukraine productivity increased sharply as well.

In recent years a big step has been taken in the cultivation of soy. As we have said, gross production now exceeds 10,000 tons. But is the demand for soybeans being met? No! Here is a fact. The mixed fodder that is prepared in interkolkhoz plants contains 1.7 percent legumes, whereas it should have at least three times as much. And what can enrich mixed fodder with protein better than soybeans!

Now let us examine gross production from another point of view. Of the 10,000 tons of soybeans produced, 1,400 tons were produced by the two experimental-specialized enterprises. Up to 100 enterprises are involved in cultivating soybeans. The Progress and Ukraina kolkhozes harvested 1,400 tons of soybeans on an area of 600 hectares. The remainder of the enterprises produced 9,000 tons of grain from 9,000 hectares. As we see, there are sharp contrasts in the return on a hectare of soybeans.

What is the reason for this?

First of all, soybeans are water-loving plants and belong on irrigated plots. However, strange as it may seem, frequently no place can be found for them there. For example, last year only 47 percent of the soybeans were found on irrigated lands, producing an average of 45.1 quintals of beans per hectare. The remaining 53 percent of the crops were found on dry-farming lands and the yield was exactly half.

A yield of 5-7 quintals of soybeans on dry-farming land discredits the crop that is three times better than corn in nutritive value. Soybeans are worth crowding other crops on irrigated lands.

Soybean farmers are awaiting new varieties. At the present time late-maturing varieties of foreign development are being utilized and they do not always ripen.

The industrial method of soy cultivation is based on two fundamental components--on irrigation and on herbicides. There is an obvious shortage of the latter. As a rule the availability of herbicides determines the sowing area for soybeans--as long as the herbicide holds out, sowing continues. There is a shortage of treflan, bazagran, linuron and prometrin.

The new technology requires a different attitude toward work--without pettiness, without separating operations into mandatory and superfluous, advantageous and not advantageous. In the Progress soybeans are cultivated by the links of D. Dimov and M. Dokov. The workers are excellent machine operators; they are punctual, efficient and impatient with irresponsibility and carelessness at work. Thus they produce large harvests.

It is necessary to learn not only how to cultivate, but how to utilize soybeans as well. Feeding them in the form of meal or coarsely ground grain is not the most effective method, specialists feel. In the Ukraine Kolkhoz a shop was recently opened to produce soybean milk at the rate of 4 tons per day. We can say that this is the first step in the direction of improving the effectiveness of soybeans as a feed. We must go even futher and prepare oil and oil-seed meal from soybeans. Specialized, interfarm enterprises will be required. As soybean production continues to increase the problem of organizing a drying enterprise will become more acute. As practical experience shows, in natural form soybeans are difficult to store and the utilization of AVM [analog computers] equipment for drying beans is not the answer to the problem. The period of storage is increasing somewhat in duration. We hope that scientists and practical workers will be included in finding the solutions to these problems.

In Odesskaya Oblast soybeans are no longer the stepchild and we assume that they will be confirmed on kolkhoz and sovkhoz fields as an equal crop. They are deserving of this.

IV. The Debt of Machine Builders

During the last five-year plan the enterprises of Primorskiy Kray were not able to produce a weighty soybean harvest and to fulfill the plan for soybean procurement. At the same time a number of links and enterprises produce harvests that are 2--3 times greater than the average in the kray.

For example, we have the Krasnorechinskiy Sovkhoz, which significantly overfulfilled its five-year quota. Despite the caprices of weather, the link of I. Smirnov has been producing large harvests on an area of over 300 hectares year after year. Sometimes the yield exceeds 20 quintals, sometimes it comprises 13-15. Stable harvests are also produced by the link of V. Pupey of the teaching enterprise of the Primorskiy Agricultural Institute.

What is the problem?

Soybeans are an accepted Far Eastern crop. Even during the last century the new settlers of the Amur region referred to them as the "green cow" and "oil-bearing peas." With the help of breeders their fame spread--it turned out that Far Eastern soybeans were very good in quality. In this region there is no agricultural crop that could solve the problem of a protein shortage to the same degree.

Soybeans give a great deal, but they also require much. In the Primor'ye region the temperature and water regiments are favorable for cultivating this crop. At the same time the kray's soils are not rich in organic substances and are characterized by increased moisture rates. For these reasons leading enterprises give priority to raising soil fertility and to strictly adhering to agrotechnology when working to increase the productivity of soybeans. For this purpose the research that was done at the Primorskiy Scientific-Research Institute of Agriculture is being examined. The research points out that soybeans grow well only when scientifically-based crop rotations are maintained and only in friable soils that are free of weeds.

When the Stepnoye Experimental-Production Association was created the plowing layer on its fields was only 15-16 centimeters deep and the yield comprised 7-8 quintals. In accordance with the developed program for increasing fertility 5-6 tons of organic fertilizer were applied per hectare annually and gradually the plowing layer increased to 27-30 centimeters. Primary and pre-sowing cultivation is performed carefully to prepare the soil well for sowing and to maximally eliminate weeds.

There are great hopes for the progressive technology of cultivating soybeans that is being introduced on the fields of Primor'ye now. In order to complete sowing within a compressed schedule and to fulfill the entire complex of crop-care operations on schedule caterpillar tractors and wide units were utilized.

The Far Eastern soybean fields are terribly weed-infested. Fertilizer supplies here increase from year to year, but because of the poor application methods they are advantageous primarily to the weeds. This is why it became necessary to develop a local-strip method of applying fertilizer directly into the root-layer of the cultivated crop. The increase in yield here comprises 2.7 quintals per hectare; and during dry years--4.6 quintals.

A study is also being made of the agrotechnology of cultivating soybeans on irrigated lands. Research on the effectiveness of irrigation has shown that the return on a hectare of soybeans increases by 6-7 quintals. The first specialized soybean sovkhoz in the Far East has been created and it will raise soybeans on irrigated lands. It is planned to produce 20 quintals per hectare there.

A great deal of importance is being attached to improving the organization of labor. Certain fields within the crop rotation are being assigned to complex mechanized links. Practical experience has demonstrated that under the conditions that exist in the Primor'ye this encourages an increase in productivity, a growing sense of responsibility for the land and a permanence of cadres. During sowing and harvesting such links are transformed into sowing and harvesting-transport complexes.

The farmers of the Far East have been saying for a long time that in order to raise the productivity of this crop it is essential to develop a complex of special machinery. Meanwhile soybean farmers are using grain sowers, which means that a great deal of the seed is damaged. Machine operators themselves are forced to reequip grain-harvesting combines, which also damage soybeans and which leave a significant portion of the harvest in the stubble field. The development of a complex of special machines should not be delayed.

The popularity of this protein-rich and oil-bearing crop is growing rapidly. This is demonstrated by the number of inquiries from the western regions of the country. The farmers of the Primor'ye willingly share their seeds and herbicides and some agrotechnical methods that could be utilized in other parts of the country.

Article Reviewed by Ministry

Moscow IZVESTIYA in Russian 18 Aug 81 p 1

[Article: "An Answer to the Editors from the USSR Ministry of Agriculture"]

[Text] The USSR Ministry of Agriculture has examined the article published in IZVESTIYA entitled, "Soybeans--A Promising Crop" (No 150 of this year) and reports that it presented correctly the urgent problems related to increasing soybean production. Many enterprises of the Northern Caucasus, the southern Ukraine, Moldavia, the Volga region and several other zones are beginning to successfully cultivate this valuable protein-oil bearing crop and to produce good harvests. However, in order to introduce the crop widely we still must solve problems related to supplying the enterprises with herbicides, liming materials, highly-productive technology and other material and technical resources. Too little irrigated land is allocated for soybeans. Breeding work to introduce highly-productive and rapidly-maturing varieties is lagging.

The USSR Ministry of Agriculture is taking specific measures to eliminate existing shortcomings.

A program for 1981-1985 has been developed together with VASkhNIL [All-Union Lenin Academy of Agricultural Sciences] and confirmed by the USSR State Commission on Science and Technology and USSR Gosplan to solve the scientific-technical problems of creating and introducing highly-productive intensive soybean varieties, to develop technological processes for the cultivation, harvesting and post-harvesting processing of soybean grain. Five union ministries and departments, 50 scientific-research institutions, four design bureaus and three plants have been recruited to work on this program. There are plans to develop highly productive, rapidly-maturing soybean varieties for all zones where they are cultivated. Within the system of state variety testing 75 native and foreign varieties are being evaluated and 31 grain varieties have been regionalized. The pace of the transition of soybean seed-farming to an industrial base has been accelerated. For this purpose 594 seed-farming enterprises have been selected. A scientific-production association for the production of soybean seed has been created in Khersonskaya Oblast.

There has been a widespread introduction of industrial technology in cultivating soybeans. In 1980 this method was utilized on 222,000 hectares and this year the area more than doubled. By 1985 the method will be utilized for all soybean crops.

As a result of the significant expansion of the soybean sowing area in the European section of the country and of an improvement in cultivation technology, especially in the Far East, it is planned to increase the average annual gross yield of soybean grain by a factor of 2.6 in comparison with the 10th Five-Year Plan.

8228
CSO: 1824/432

MAJOR CROP PROGRESS AND WEATHER REPORTING

HARVEST PROCEEDING RAPIDLY IN AKTYUBINSKAYA OBLAST

Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 6 Aug 81 p 1

[Article by A. Gurkin (Aktyubinskaya Oblast): "The Harvest Front Expands"]

[Excerpts] The harvest is well under way on the immense expanses of the Aktyubinskaya Steppe. Grain growers of the oblast have committed themselves to selling no less than a million tons of grain to the homeland. This will be the first time for them to sell such a quantity.

The large amount of grain did not come of its own accord. As was noted at a recent plenum that considered the tasks of the oblast party organization for organized harvesting and successful fulfillment of this year's plans and socialist commitments for procurements of grain and other agricultural products and feeds, workers of the oblast have done a good deal to raise a rich crop. Here are just a few figures. About 900,000 tons of organic fertilizers and 52,000 of mineral fertilizers were applied to the planted areas. Phosphorus fertilizers were applied along with the seeds on an area of 370,000 hectares. Only stubble seeders were used on 98 percent of the areas planted in grain crops. Despite the prolonged spring, the majority of the farms conducted the planting campaign in an organized way and on a high agrotechnical level. And one must say that the area planted in grain crops amounted to 350,000 hectares than the plan called for, and the overall area planted in these crops--again for the first time in the history of the oblast--amounted to 2.24 million hectares.

And here are the latest announcements about the harvest. On 4 August they had already mowed more than 360,000 tons of barley and winter rye, and almost 280,000 tons of grain had been threshed. The average productivity is 2.4 quintals more than on the same date last year. Machine operators of Khobdinskiy, Alginskiy and Oktyabr'skiy rayons have gathered more grain than the others.

The grain is already arriving at the grain bins of the homeland. The leaders in selling it are Oktyabr'skiy, Alginskiy and Mugodzharskiy rayons. The high quality of the grain is gratifying. On the majority of the farms the physical weight of the barley and rye exceeds the base weight by 25-30 grams. The work of the mechanized threshing floors has been efficiently organized. The grain comes into the state grain bin clean and dry.

The struggle for grain has been heated since the first days. The farmers have been given the task of completing the harvest in no more than 20 working days. In order to do this the oblast must harvest no less than 110,000 hectares of grain fields each day and increase the daily output from each combine to 15 hectares, and from each reaper to 30 hectares. The task is quite realistic. This has been convincingly shown by the examples of the leading farms. In response to the decisions of the 26th Party Congress, grain growers are exerting all efforts to honorably fulfill and overfulfill their high socialist commitments.

11772
CSO: 1824/419

MAJOR CROP PROGRESS AND WEATHER REPORTING

GRAIN HARVEST GATHERING SPEED ON FIELDS OF KIRGIZIYA

Moscow SEL'SKAYA ZHIZN' in Russian 9 Jul 81 p 1

[Article by I. Masaulov (Kirgizskaya SSR)]

[Excerpts] The grain fields are lively in Kirgiziya right now. The harvest is in progress. The farmers are gathering more than 20 quintals of grain from each hectare of many of the nonirrigated sections, and up to 40 quintals from the irrigated ones. The majority of farms have prepared well for the harvest and developed the plan for it carefully. But during these rainy days it is necessary to be especially concerned about taking advantage of each hour of fair weather as productively as possible. In places where this is being skillfully, the machine operators are achieving success.

In the Chuyskaya Valley--the republic's grain bin--the grain is not ripening uniformly. Taking advantage of last year's experience, they have begun to maneuver the technical equipment here: the harvesting aggregates have been taken from the upper zone where the grain crops are not yet ready for harvesting and sent to the farms of the lower zone. The combines have been included in interfarm harvesting complexes. By using them it is possible even with unfavorable weather to harvest the ripe areas relatively quickly.

The interfarm complex completed the threshing of grain crops in reduced time periods in the Alamedinskoye state-kolkhoz association, Zhivprom. Having joined together, farmers are conducting the harvest on the last hectares in the lower zone of the region.

The time with good weather is utilized efficiently in Kantskiy Rayon as well. They have already mowed about 40 percent of the grain crops and placed them into swathes. The rain is an impediment, but as soon as the weather allows the combines will go out to thresh the swathes. The rayon staff analyzes the state of affairs in the rayon each day and makes effective decisions to eliminate shortcomings. For example, the beginning of the harvest was delayed on the Kolkhoz imeni Kirov. The rayon staff carefully discussed the reasons for the delay. Measures were taken and the rates of the harvest increased.

Maneuvering of technical equipment and skillful organization of labor under unfavorable weather conditions makes it possible for many rayons of the Chuyskaya Valley and also Oshskaya and Talasskaya oblasts to conduct the harvest of grain crops in a skillful way. The first truck convoys have delivered grain from the new crop to the grain receiving points of the republic.

Grain growers of the kolkhozes and sovkhozes are exerting all efforts so as to honorably fulfill the socialist commitments of the first year of the five-year plan for increasing the production of grain and other agricultural products. They are striving to harvest the crop that has been raised without losses.

11772
CSO: 1824/419

BRIEFS

KAZAKH HARVEST--Kazakh SSR--Selective harvesting has been started by the farms of all oblasts of the Kazakh virgin land with the exception of the kolkhozes and sovkhozes of Severo-Kazakhstanskaya Oblast. The grain has been mowed on the first million hectares in the republic. Farmers will have to gather the grain from 4.3 million hectares in Kustanayskaya Oblast--one of the largest grain bins in the country. Participating directly in the harvest will be 125,000 people and 70,000 units of various kinds of technical equipment. Despite the fact that the machine fleet has been augmented, the load on technical equipment will be great, as it is in other virgin land oblasts--240-250 hectares per combine and more than 200 hectares per reaper. One can understand how important it is for the technical equipment to be completely ready and to operate reliably. Still, quite a few combines had left the shops by the beginning of the harvest. [Text] [Moscow IVESTIYA in Russian 14 Apr 81 p 1] 11772

MOUNTAIN HARVEST--The majority of farms in Lingerskiy Rayon are located in a mountainous zone. Therefore they can complete the harvesting of grain crops later than others. But not the reaping of grain crops is coming to an end here too. Farmers of the rayon have been gratified with rich crops this year. They are gathering an average of 25.5 quintals of grain from each hectare. And many farms are threshing 30 quintals and more. [Text] [Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 1 Aug 81 p 1] 11772

A BUSINESS-LIKE ATTITUDE--The harvest is in full swing in the foothills of Sayram. The farmers are struggling to deposit no less than 40,000 tons of grain in the grain bins of the homeland, while the plan is for 29,500 tons. These calculations are based on large yields. This year there is more grain than even old-timers can recall. The average threshings for the rayon amount to almost 21 quintals of grain per hectare and on the leading farms they reached 25-30 quintals. This year's harvest began under difficult conditions. The wheat did not ripen uniformly and it lodged severely on large areas. But this did not stop the machine operators. They had prepared the combines well, considered their forces ahead of schedule and determined a strategy for the harvest. They relied mainly on the Ipatovo method and extensive maneuvering of technical equipment both within the farms and within the rayon. [Excerpts] [Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 2 Aug 81 p 1] 11772

NONIRRIGATED SPIKE CROPS--Chimkent--Farmers of Algabasskiy Rayon raised a large yield of spike crops on the nonirrigated land of Southern Kazakhstan. They delivered 10,000 tons of grain in excess of the plan to the Chayanskiy grain receiving

They were successful because of progress agro-technology and a new, highly productive local strain of winter wheat called Krasnovodopadskaya-210. Farmers of the rayon intend to overfulfill the plan for the sale of grain to the state more than two-fold. [Text] [Moscow TRUD in Russian 22 Jul 81 p 1] 11772

HIGH CONDITIONS--Chimkent--The arid, semi-desert in the south of Kazakhstan has been transformed into a producer of grain. An average of a 100-pood yield of winter wheat has been gathered from the new farming oases of this zone where rain falls rarely. This is the result of extensive utilization of a new, intensive strain from Kazakh selection, Krasnovodopadskaya-210. On many sections it even produced up to 40 quintals of grain with good food quality. Now, having completed the replacement of the seed supplies for the future crop, the farms have begun to send Krasnovodopadskaya-210 to augment state seed resources. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 5 Aug 81 p 1] 11772

VIRGIN HARVEST--Tselinograd--Harvest time has come to the grain fields of yet another virgin oblast of Kazakhstan--Tselinogradskaya. The farmers today began harvesting barley which occupies 560,000 hectares--one-fifth of all the grain fields in the oblast. The harvest was not easy. Some areas were thinned by the hot steppe winds. But even under these conditions the machine operators were ready for continuous work. Teams of master adjustors service the combines directly on the fields where they are working. Staffs created on each farm are operating efficiently. They determine the harvest tactics. On certain areas the harvesting is being conducted by direct combining and on others, the barley is placed into swathes. [Text] [Moscow IZVESTIYA in Russian 16 Aug 81 p 1] 11772

HIGH-SPEED HARVEST--Karaganda--Farmers of Central Kazakhstan have resolved to conduct the harvest by high-speed methods--in a total of 200 working hours. They began mass harvesting of spike crops yesterday. [Text] [Moscow TRUD in Russian 13 Aug 81 p 1] 11772

WATER SHORTAGE--This summer has been difficult in the Semipalatinskaya part of the Irtysh area: there has been no grain and the grass has been poor. On many farms and in many brigades the water troughs and wells have dried up, and there is no water in the deeper wells. The hayfields have turned yellow. And only in the mountains, in the summer grazing areas, have the flocks of sheep and herds of horses found green grass and water. About a half million sheep and more than 18,000 head of large-horned cattle and horses are kept in the rayon. The farms need to store up no less than 100,000 tons of hay for their wintering. This is not an easy task. [Text] [Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 21 Jul 81 p 1] 11772

TSELINOGRADSKAYA GRAIN--Tselinogradskaya grain farmers have immense grain fields which occupy 2.8 million hectares. They intend to harvest them in three weeks. It is possible to do this. Like last year, all technical equipment will be used according to the Ipatovo method. The farms of the oblast have created 605 harvest-transport complexes which include 6,500 teams. Many farms are already prepared for the harvest. But they are not fully ready for it everywhere. Thus in Tengizskiy Rayon by August 1 out of every 100 combines 27 had not been fully repaired, and in Seletinskiy and Kurgal'dzhinskiy rayons--13. The preparation of the reapers has been delayed here also. In fact only 79 percent of them have been repaired in the oblast as a whole. Grain growers and farm managers are making many complaints against Goskomsel'khoztekhnika associations. They are late in delivering spare parts, especially blades, segments and pins for them, drive belts and batteries. Not everything is well arranged with respect to the utilization of combines that have been written off. Skillful farmers adapt them for seeder loaders, hay pickup and bunker-accumulators. They are usually operated from spring until late fall. There are about 2,000 of these machines. But spare parts are not allotted for them. As a result, the combines which could serve another two or three years have to be sent for smelting. Not many days are left before the beginning of mass harvesting on the virgin land. [Excerpts] [Moscow PRAVDA in Russian 16 Aug 81 p 1] 11772

AKTYUBINSKAYA HARVEST--Tedious, incessant rain, sometimes letting up, sometimes falling more heavily, fell on the steppe all night. In the morning there was no question of the combines going out onto the fields. Evaluating the situation, the chief of the Alginskiy Rayon agricultural administration, N. Sidorov, decided to send telegrams to the farms asking them to step up work for shipment of grain from the threshing floors to the elevators and, where possible, assigned people to plant winter rye and plow fallow fields. High spirits in work now distinguish all grain growers of the rayon. The yield in the first year of the new five-year plan was rich and this gratifies the people. A couple of days ago, having weighed their possibilities again, the workers of the rayon revised their socialist commitment and resolved to sell the state 100,000 tons of grain, which is much more than was intended earlier. There are 627 combines working on the fields these days. In spite of the poor weather conditions, the grain is threshed from an area of from 4,000-5,000 hectares each day. Many farms have already completed the threshing of the barley and have turned to mowing wheat. The pulse of the harvest is rapid. Grain growers of Alginskiy Rayon are taking advantage of every hour of good weather so as to gather the rich harvest on time and without losses. [Text] [Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 12 Aug 81 p 1] 11772

A SINGLE CONVEYOR--Ashkhabad--Farmers of Turkmenistan have completed the harvesting of winter crops. In many rayons of Ashkhabadskaya, Maryyskaya and Chardzhouskaya oblasts, the productivity of the spike crops exceeded 20 quintals of grain per hectare and in the virgin Gyaurskiy Rayon--26 quintals. The fields from which the grain crops have been removed are being planted in corn and other feed crops. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 7 Jul 81 p 1] 11772

TURKMEN GRAIN--Ashkabad--Farms of Ashkhabadskaya Oblast completed the mowing and threshing of winter grain crops today. The threshings were larger than last year's. About 85,000 hectares have been allotted for spike crops in Turkmeniya. A large part of the grain fields have already been harvested. The farmers have resolved to gather about 180,000 tons of grain. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 28 Jul 81 p 1] 11772

TURKMEN CORN--Ashkhabad--Harvesting has begun on the corn fields of the republic. The golden ears with heavy kernels are going in a steady flow to the kolkhoz and sovkhoz storehouses of Murgabskiy, Gyaurskiy, Ashkhabadskiy, Charshanginskiy and other rayons. The work has been efficiently arranged since the first days of the harvest on the Gyaurskiy solvkhoz-complex Imeni 9 Ashkhabadskikh komissarov. On the fields the combines are followed by manure and fertilizer spreaders and plowing aggregates, and the soil is prepared for repeated planting of corn for silage.

According to the calculations of specialists, this year each hectare will produce 70-75 quintals of amber grain and 400 quintals of green mass from the second crop. The corn is ready for harvesting even in the northernmost oblast of Turkmeniya, Tashauzskaya, which is rightfully considered to be the main producer of the amber grain. The yield here will amount to no less than 66,200 tons. The leading collectives of Il'yalinskiy, Tashauzskiy, Leninskiy and other rayons, having assimilated industrial methods of cultivating corn, count on obtaining 120 quintals of grain from each hectare. The output of this valuable grain in the republic as a whole will amount to 147,000 tons. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 11 Aug 81 p 1] 11772

CORN HARVEST--Ashkhabad--Machine operators of the Prikopetdagskaya plain of Turkmeniya have begun mass harvesting of corn ears. [Text] [Moscow TRUD in Russian 13 Aug 81 p 1] 11772

GRAIN HARVEST COMMENCES--Vladivostock--The farms in the maritime region have begun harvesting their grain crops. Under complicated weather conditions, the crops must be harvested from an area in excess of 10,000 hectares in just 70-80 working hours. [Text] [Moscow TRUD in Russian 26 Jul 81 p 1] 7026

COMPLICATED WEATHER CONDITIONS--Krasnoyarsk--Not only the grain but also all of the straw will be gathered up during the mass harvest operations which have just commenced throughout the kray. This is one of the peculiarities of this harvest campaign and it is dictated by the complicated weather conditions being experienced this year. The July period of dryness has been replaced by rainfall and next month, according to the forecasts of meteorologists, snow may fall. The harvesting period is not very long. The workers in Krasnoyarskiy Kray have resolved to use it in the most efficient manner possible. [Text] [Moscow GUDOK in Russian 15 Aug 81 p 1] 7026

ALTAY GRAIN HARVEST--Barnaul, 14 Aug--The grain growers in Biyskiy, Smolenskiy, Sovetskiy, Altayskiy, Krasnogorskiy, Zmeinogorskiy and Tselinnyy Rayons were the first to more their harvesting units out onto the fields. This year the Altay farmers must grain crops from an area in excess of 4 million hectares. More than 1,500 harvesting-transport complexes will participate in the harvest operations. [by A. Torichko] [Excerpts] [Moscow SEL'SKAYA ZHIZN' in Russian 15 Aug 81 p 1] 7026

TRANS-URALS GRAIN HARVESTING--Kurgan--The harvesting campaign has reached the Trans-Urals region. The machine operators are harvesting winter rye and peas and they have commenced the selective harvesting of wheat. The grain crops have been cut down on an area in excess of 100,000 hectares. [Text] [Moscow IZVESTIYA in Russian 16 Aug 81 p 1] 7026

CORN HARVEST COMMENCES--Volgograd--The harvesting of corn has commenced in Volgogradskaya Oblast. The specialized teams have raised a fine crop of corn for silage on both irrigated and non-irrigated land. The field production line is in continuous operation in Kalachevskiy Rayon, on the farms of which 25 detachments have been created. These detachments include all of the silage harvesting combines and more than 250 machines and tractors with field wagons. Each detachment has a reserve combine. It is immediately included in the operations when one of the units breaks down. This made it possible to raise the effectiveness of use of the equipment and to eliminate equipment idle time. The detachments in other rayons of the oblast are operating at a high tempo. [Text] [Moscow IZVESTIYA in Russian 16 Aug 81 p 1] 7026

FOUR HUNDRED TRANSPORT COMPLEXES--Lipetsk--The oblast's farms have harvested one half of their grain crops. Four hundred harvesting-transport complexes are in operation out on the fields. [Text] [Moscow IZVESTIYA in Russian 9 Aug 81 p 1] 7026

TAMBOVSKAYA OBLAST FIELD WORK--Tambov--The farmers in Zherdevskiy Rayon were the first in the oblast to complete the thrashing of the early grain crops. Using their equipment in accordance with the Ipatovo method, they completed the work in just two working weeks and resolved to carry out their autumn plowing during the best periods, thus guaranteeing a solid increase in yield for the following year. The kolkhozes and sovkhozes in many rayons are carrying out their field work successfully as they compete with the leaders. [Text] [Moscow IZVESTIYA in Russian 16 Aug 81 p 1] 7026

GRAIN THRASHING OPERATIONS--Orenburg--The oblast's farmers are thrashing the grain crops on their second million hectares. A high output is being achieved by the harvesting-transport teams in Ilekskiy, Saraktashskiy, Sol'-Iletskiy and other rayons. Here the servicing of the equipment has been organized well and the watch-standing method of work is being employed. [Text] [Moscow IZVESTIYA in Russian 9 Aug 81 p 1] 7026

GRAIN DELIVERY SCHEDULES--Kuybyshev--The oblast's farms have commenced their mass harvesting of the grain crops. The heat which continued througout the growing and ripening seasons for the grain crops has caused the farmers to change their strategy. The decision was made to harvest the spring crops directly, at the lowest cutting. Using electronic computers, schedules for delivering the grain to the elevators were prepared. The Kuybyshev farms plan to complete their grain harvest work in 15-18 days [Text] [Moscow TRUD in Russian 22 Jul 81 p 1] 7026

ASSISTANCE FOR GRAIN HARVEST--Orenburg--The mass harvesting of grain cro has commenced on the virgin land farms in Orenburgskaya Oblast. Large detachments of machine operators have arrived from the southern rayons of the oblast to lend assistance. "To supply the homeland with a greater quantity of grain" such is the slogan of the collective at the Bratslavskiy Sovkhoz. It is being supported by the sovkhozes in Adamovskiy, Svetlinskiy, Dombarovskiy and other rayons. In all, approximately 1 million hectares of grain crops must be harvested from the developed virgin lands. [Text] [Moscow TRUD in Russian 15 Aug 81 p 1] 7026

ORGANIZED GRAIN HARVEST OPERATIONS--Orenburg, 21 Jul--The grain harvest work has commenced in the southern rayons of Orenburgskaya Oblast. The farms in Ilekskiy, Belyayevskiy and Orenburgskiy Rayons have commenced cutting down their winter rye and barley in an efficient and organized manner. An experience machine operator at the Rossiya Kolkhoz in Ilekskiy Rayon, V. V'yugin, is operating his combine at low speed and without halts. The machine is set for the lowest cutting. The machine operators are aware: under the conditions being experienced this year, the crops must be harvested completely, down to the last spikelet. Additional hermetic sealing kits have been installed aboard the combines and attachments have been made for the windrow pick-ups and harvester-stackers. The units and mechanisms were adjusted during gang-mowing work. Experienced instructor-machine operators furnished assistance to the young combine operators. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 22 Jul 81 p 1] 7026

GRAIN SALES TO STATE--Barnaul, 7 Aug--The kolkhozes and sovkhozes in the piedmont rayons of Altayskiy Kray have commenced selling grain to the state. The first receipt for grain delivered was signed at the Ust'-Katunskiy Grain Receiving Enterprise for the Put' K Kommunizmu Kolkhoz in Sovetskiy Rayon. The farms in Smolenskiy, Biyskiy, Tselinnyy and other rayons have all joined in the harvesting work. During the next few days, the mass cutting down of the principal grain crop -- spring wheat -- will commence. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 8 Aug 81 p 1] 7026

GRAIN HARVEST PREPARATIONS--Barnaul, 11 Aug--Today all of the grain receiving enterprises in the Altayskiy Kray began receiving grain from the new harvest. The kray's machine operators have commenced the mass cutting down and thrashing of their grain crops. The kray's farmers have repaired their harvesting equipment in a timely manner and, in keeping with the Ipatovo method, have combined their items of equipment into 1,530 harvesting-transport complexes. They have all been equipped with technical servicing and field repair subunits. An exchange fund for spare parts has been created and a dispatcher service is in operation. Many complexes are employing the watch-standing method and operating in two shifts. The grain procurement specialists have entered the harvest operations. Prior to the commencement of the season, they modernized all of the grain receiving enterprises, provided them with additional capacities and built 40 new unloaders for the motor vehicle trains and K-700 tractors. The capabilities of the drying economy have been increased considerably. This year's harvest operations in Altayskiy Kray have turned out to be complicated. The dry summer affected the condition of the crops. The grain crops are not uniform; a large portion of them are of low height and sparse. Thus the farmers are harvesting them in conformity with the situation: using the two-stage method and direct combining. [Text] [Moscow SOVETSKAYA ROSSIYA in Russian 12 Aug 81 p 1] 7026

TWO-STAGE HARVESTING METHOD--Tomsk--Yesterday the machine operators in the Tomsk Ob' River region commenced harvesting their winter rye. Seventy harvesting-transport complexes were moved out onto the fields. The harvesting work is being carried out using the two-stage method. In the taiga rayons, the grain crops must be harvested from 350,000 hectares of fields. [Text] [Moscow TRUD in Russian 12 Aug 81 p 2] 7026

GRAIN HARVEST NEARING COMPLETION--Kursk--The grain harvesting combines have departed the fields in Oboyanskiy Rayon -- the local machine operators were the first in Kurskaya Oblast to complete their harvesting of grain crops and they have already commenced their autumn plowing. The harvest operations are nearing completion in the oblast [Text] [Moscow TRUD in Russian 31 Jul 81 p 1] 7026

EARLY RIPENING OF CROPS--Smolensk--The Smolensk farmers have commenced harvesting their grain crops. This year the winter and spring crops ripened 2 weeks earlier than usual. [Text] [Moscow TRUD in Russian 26 Jul 81 p 1] 7026

RAPID HARVEST COMPLETION PLANNED--Kirov--The mass harvesting of grain crops has commenced in the southern and central zones of the oblast. The unusually hot weather has accelerated the ripening of the grains. The front of the busy harvest campaign is advancing rapidly towards the north. This year the Kirov kolkhozes and sovkhozes must harvest grain crops from an area of 1.4 million hectares. The majority of the farms are planning to complete their harvest work on a rapid basis. Six hundred harvesting-transport complexes are in operation. [Text] [Moscow TRUD in Russian 25 Jul 81 p 1] 7026

IPATOVO METHOD EMPLOYED--Bryansk--Harvest operations are in progress on all of the oblast's farms. The grain crops have been laid out in windrows on almost 60,000 hectares. The Ipatovo method has been introduced into operations in all areas. The two-stage harvesting method is making it possible to utilize the equipment efficiently and to lower grain losses. A number of farms have commenced thrashing their grain. [Text] [Moscow TRUD in Russian 19 Jul 81 p 1] 7026

TULA MASS GRAIN HARVESTING--Tula--The mass harvesting of grain crops has commenced out on the oblast's fields. The busy harvest campaign is producing some leading workers -- more than 20 hectares of grain crops are being cut down into windrows during a shift by N. Baybakov at the XI Oktyabr' Kolkhoz. The Tula farmers are striving to carry out the harvest work as rapidly as possible and without losses. [Text] [Moscow TRUD in Russian 19 Jul 81 p 1] 7026

EARLY GRAIN HARVEST--The hot July weather has accelerated the ripening of the grain crops and the grain fields have begun to turn yellow in color. The chairman of the Zavety Il'icha Kolkhoz in Khislavichskiy Rayon A. Kozlov and the farm's chief agronomist A. Khvastovskiy stated: "The harvest is unusually early this year. The grain crops are "ripening before one's eyes" and thus a principal concern in carrying out the harvest work is that of maneuvering the equipment and speed. We began by cutting down the rye and today we look and see that the barley has ripened. It must be thrashed at once so as not to lose any grain. We will switch over to harvesters and employ the two-stage method." Other farms in Khislavichskiy Rayon are carrying out their harvest work in an organized manner. More and more of the oblast's rayons are commencing their harvest operations. Importance is being attached to ensuring that the high tempo achieved by the leading workers commencing with the very first days of the harvest campaign is maintained on all of the farms. [by A. Glazko] [Excerpts] [Moscow SEL'SKAYA ZHIZN' in Russian 2 Aug 81 p 1] 7026

HIGH FIELD PRODUCTIVITY--Kaliningrad--The week of shock labor declared in Gur'yevskiy Rayon in behalf of the harvest campaign has enabled the grain growers here to achieve the highest field productivity in the oblast. The Gur'yev combine operators are thrashing 700-800 hectares of grain daily. The busy harvest campaign is increasing in tempo with each passing day throughout the oblast. One fifth of all of the grain crops have already been harvested. [Text] [Moscow IZVESTIYA in Russian 9 Aug 81 p 1] 7026

CROPS SOLD TO STATE --Russian Federation--The principal event of the week in the farming department -- the labor victory achieved by the grain growers in Stavropol'skiy Kray, who successfully fulfilled their socialist obligations for selling grain to the state. For their considerable achievement, they were warmly congratulated by L.I. Brezhnev. The harvest operations have reached the large eastern grain areas of the republic. In Altayskiy Kray, the equipment has been merged together into 1,530 harvesting-transport complexes based upon the Ipatovo method. They are all equipped with technical servicing and field repair subunits. A dispatcher service is in operation. Many of the complexes are employing the watch-standing method and operating in two shifts. The grain procurement specialists have entered the harvest campaign. Prior to the beginning of the season, they modernized all of the grain receiving enterprises, provided them with additional capacities and built 40 new unloaders for the motor vehicle trains and K-700 tractors. The capabilities of the drying economy have been increased considerably. Unfortunately, there is one alarming fact -- the pause that occurs between the mowing and thrashing is great in Irkutskaya, Kemerovskaya and Tyumenskaya Oblasts. And indeed the Siberian autumn is severe and turns very rapidly into winter: if the grain remains for very long in windrows, the threat arises of their being subjected to rainfall and frosts. Recently there has been some good rainfall in the southern part of Altayskiy Kray, in Kemerovskaya and Omskaya Oblasts and in eastern Siberia and this is promoting the formation of the wheat grain. Changes often take place in the complicated farming profession and full benefit must be derived from those which are beneficial. Indeed, the experience of the Rostov Gigant Sovkhoz should be pointed out. This year, despite extreme arid conditions, it once again achieved an average of more than 30 quintals of grain per hectare. Many farms in the Volga region also performed well, despite a shortage of rainfall. Such results are achieved in those areas where a creative approach is employed in farming, where a search is always underway for new developments and where every attempt is made to employ the scientific and practical recommendations in behalf of highly productive farming. [Text] [Moscow IZVESTIYA in Russian 14 Aug 81 p 1] 7026

COMPLICATED GRAIN HARVEST CONDITIONS--Vladimirskaya Oblast--Many farms in Vladimirskaya Oblast have resolved to complete their harvest work in just 10 or a maximum of 12 calendar days. But this year the situation out on the grain fields is complicated throughout the oblast as a whole. The Vladimir farmers carried out a great amount of work aimed at achieving a good harvest this year. However the yields have been affected by the dry weather. Nevertheless, the farmers attempted to reduce the unfavorable consequences. The chairman of the Kolkhoz imeni XXII S"yezda KPSS, V. Pantykin, believes that a reduction in the harvest schedules to 10 working days (achieved through earlier mowing of the grain crops into windrows) made it possible to save 2-3 quintals of grain per hectare. In harvesting the sparse and short-stalk grain crops, what was done to prevent grain, straw and glume losses? The reel on the combines was installed nearer to the screw conveyer and now neither the straw nor the ears accumulated on the teeth. On the main screw conveyer of the harvester, two blades were placed which discard the small stalks onto an inclined conveyer and not onto the stalks. The warm summer has complicated the procurement of feed for public animal husbandry. Thus importance is being attached to acquiring straw and glume. On farms in Gorokhovetskiy, Suzdal'skiy, Yur'yev-Pol'skiy, Muromskiy and a number of other rayons, the straw is no longer being unloaded just anywhere depending upon where the straw carrying wagons accumulate. Anymore the bulk is being delivered directly to the stacking area. This list could be continued but unfortunately there are some dark aspects of the harvest work which must also be discussed. Not everyone has profited from the advantages offered by an early mowing schedule. And, as a result, considerable quantities of grain have been lost. It is even more unpleasant to view a lack of proper preparations for the harvest season. The oblast's farmers are undergoing an important examination. It will not be easy for them. Special importance is being attached to disseminating the experience of leading workers. This will make it possible to save time, preserve and harvest rapidly the crops as raised. [Excerpts] [Moscow SEL'SKAYA ZHIZN' in Russian 15 Aug 81 p 1] 7026

BELORUSSIAN POTATO FIELDS--The potato fields of Belorussia are extensive -- 380,000 hectares. The republic's machine operators are displaying a great amount of concern for them as they strive to obtain 180-190 quintals of tubers from each hectare. How is work proceeding out on the plantations and what measures are being undertaken by the workers in the competing rayons in Minskaya Oblast -- Stolbtsovskiy and Uzdenskiy -- in the interest of carrying out their socialist obligations? [Text] [Moscow PRAVDA in Russian 10 Jul 81 p 1] 7026

LODGING OF RYE--Kirovskiy Rayon--The harvesting of the grain crops is already in progress in the southern rayons and here in Mogilevskaya Oblast they are still in the process of ripening. The harvest for the first year of the Eleventh Five-Year Plan promises to be a good one. True, the rye has lodged on considerable areas and this is hampering the harvest work. We are employing the two-stage harvesting method and the self-propelled E-301 mower. It is known that the grain harvest crowns the work of the grain growers. It is the period of the greatest labor tension. Our kolkhoz members are sparing no effort to ensure that it is carried out as rapidly as possible and without losses. [by G. Solonovich, chairman of Kolkhoz imeni Kirov] [Excerpts] [Minsk SOVETSKAYA BELORUSSIYA in Russian 15 Jul 81 p 1] 7026

MANEUVERING OF EQUIPMENT--Vitebsk, 23 Jul--The border of the harvest operations has advanced from the south to the northern part of Belorussia. Today the baton for busy harvest season has been passed to the farms in Vitebskaya Oblast. The early and irregular ripening of the grain crops, which occupy approximately 3 million hectares throughout the republic, requires efficient maneuvering of the equipment. The multi-purpose detachments are skilfully combining the two-stage method with direct combining. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 24 Jul 81 p 1] 7026

ACCELERATED GRAIN DELIVERIES--Grodno, 6 Aug--A brigade detachment is furnishing assistance to the drivers in accelerating the grain deliveries from kolkhozes and sovkhozes in Grodnenskaya Oblast to the state granaries. The contractual agreements between the motor vehicle operators, farm workers and receiving points called for daily tasks for transporting the grain and for its timely loading and unloading. Hundreds of motor vehicle trains were formed, each of which delivers 10-12 tons of grain per trip. The centralization of control over shipments and the introduction of cost accounting are making it possible to raise the productivity of the motor vehicles by a factor of 1.5 and to ensure uninterrupted grain deliveries to the granaries. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 7 Aug 81 p 1] 7026

GOMEL'SKAYA OBLAST GRAIN OPERATIONS--The grain fields in Gomel'skaya Oblast have taken on a waxy color earlier than usual. The harvest operations, for which 450 harvesting-transport teams were brought to a fine state of readiness, are now in progress. A feature of this harvest -- irregular ripening of the grain crops even on the same field. This has determined the strategy of the busy harvest work. The two-stage harvesting method is being employed throughout the oblast. "The grain is ripening in the windrows" stated the chief of the oblast agricultural administration I.P. Solenov, during a discussion with a BELTA [Belorussian News Agency] correspondent, "In return, several valuable days will be gained. Indeed, the fine days which we are experiencing at the present time are making it possible to achieve a high level of equipment productivity through use of the two-stage method of harvesting. And all of the conditions have been created for this. The teams have been fully staffed for double shift operations. Under favorable conditions, the harvesting will be carried out by the light of motor vehicle headlights. Constant watch-standing has been organized out on the fields for the repair workshops and supply bases. In order to furnish assistance to a number of farms, the rayon branches of Sel'khoztekhnika formed their own harvesting-transport detachments. Schedules have been prepared for their operations which take into account the ripening of the grains and the requirements of the farms. Extensive use will be made this year of the brigade form of wages -- the work of the machine operators into one money-box. Past experience reveals that this type of organization of labor makes it possible to raise the interest of the machine operators in achieving high final work results, to furnish assistance to neighbors and to raise the productivity of the equipment. Earlier, one bottleneck at a number of kolkhozes and sovkhozes was the drying economy. This year, approximately 40 additional lines for procuring seed have been built in the oblast, storehouse space for 16,000 tons of grain has been placed in operation and sheds built. This will ensure the rapid and timely processing of the grain and its preservation. [Text] [Minsk SEL'SKAYA GAZETA in Russian 15 Jul 81 p 1] 7026

PRINCIPAL FIELD CROP--Bryanskaya Oblast--Many farms in Bryanskaya Oblast, having completed sowing their early grain crops, are now planting their potatoes -- the main field crop for this region. A high goal is planned: to obtain 155 quintals of tubers from each hectare and to sell 705,000 tons of them to the state. The presowing germination of tubers is an important agrotechnical measure and one which makes it possible to obtain early potatoes under all types of weather conditions. This year it is being introduced extensively throughout Bryanskaya Oblast, with use being made of the experience of Latvian farmers and the recommendations of the Bryansk branch of the Scientific Research Institute of the Potato Economy. In Suzemskiy and other rayons they began in the spring by making bags out of polyethylene plastic. Each bag can hold 20-25 kilograms of tubers; the bags are sewn on both sides and thereafter hung from a bracket. In the event of a cold snap, they can easily be covered with additional polyethylene plastic. Bulk warming of the potatoes is employed. When this method is used, small clamps are made with metal or wooden plastic covered frames installed above them. Preliminary germination makes it possible to obtain strong shoots 1-1.5 centimeters in length. For planting such tubers from the receiving hoppers of transplanting units of an SN-4B planter, the agitators are removed and their rollers replaced by others. In addition, the screw conveyers of the receiving hoppers are covered by metal reflecting shields so as to protect the shoots from breaking. Re-equipped row crop cultivators are used for making the ridging for the early potatoes, with mineral fertilizers being applied to the soil simultaneously. The planting rates are increasing with each passing day. This work is being carried out at a maximum tempo in Novozybkovskiy Rayon. More than one third of the area set aside for potatoes has already been planted. The Bryansk potato growers are fully resolved to carry out the socialist obligations undertaken for the first year of the Eleventh Five-Year Plan. [Excerpts] [Moscow SEL'SKAYA ZHIZN' in Russian 28 May 81 p 1] 7026

URGENT MEASURES REQUIRED--Minskaya Oblast--Friendship and the exchange of experience are producing fine results for the machine operators. But was the competition among the potato growers always organized in such an efficient and productive manner? Obviously, not always. For many years Uzdenskiy Rayon was the leader with regard to the cropping power of the tubers. Why is it that the machine operators in Stolbtsovskiy Rayon have fallen behind their rivals? There are several reasons. One of the more important ones has to do with the fact that the leading means and methods borrowed from neighbors are being mastered very slowly. At times, the competition amounts merely to an exchange of information. It is important for the machine operators to know not only how many tubers were harvested but also the reasons for the success. By no means is the experience of leading machine operators, those employing a progressive technology, being employed on a mass scale on all farms in the oblast or even throughout the republic. For example, low yields have been obtained over a period of many years on farms in Rossonskiy, Sennenskiy, Mstislavskiy, Slavgorodskiy, Krupskiy and Oshmyanskiy Rayons. And still today the proper conclusions are not being drawn on these farms. The soil is not being adequately supplied with fertilizers and the planting work was carried out in a low quality manner, as a result of which the seedlings are sparse in some areas. The schedules for cultivating the plantations are not being followed in all areas and the campaign against diseases and pests is being carried out in a very weak manner. Urgent measures are required in order to correct this situation. On the whole however, a fine potato harvest is ripening out on the Belorussian fields. The land is responding fully to the concern displayed by the workers. [by A. Simurov] [Excerpts] [Moscow PRAVDA in Russian 10 Jul 81 p 1] 7026

LATVIAN POTATO PROCUREMENTS--Riga--Compared to last year, there has been a twofold increase in early potato procurements in Latvia this year. Nor is it simply a matter of the harvest being abundant. Each day, motor vehicles -- mobile receiving points for the consumer societies -- draw up to the rural homes. Commencing with this season, they have been created in regions of the republic. [Text] [Moscow TRUD in Russian 4 Aug 81 p 1] 7026

BRYANSKAYA OBLAST POTATO PLANS--Bryansk, 17 Jul--For the first year of the Eleventh Five-Year Plan, the oblast's farmers have vowed to obtain 150 quintals of tubers from each of 120,000 hectares and to sell more than 700,000 tons of them to the state. [by G. Krasnoperov] [Excerpt] [Moscow SEL'SKAYA ZHIZN' in Russian 18 Jul 81 p 1] 7026

FIFTEEN TONS OF EARLY POTATOES--Masis (Armenian SSR)--The potato groves in the Araratskaya Valley have moved their harvesting equipment out onto the fields. On the specialized farms, an average of 150-170 quintals of early potatoes is being obtained per hectare. The republic's kolkhozes and sovkhozes are planning to supply the trade network with 15,000 tons of this product. [Text] [Moscow KRASNAYA ZVEZDA in Russian 16 Jun 81 p 1] 7026

TWO POTATO CROPS--Odessa--This year the farms of the Odesskplodoovoshchprom Association plan to obtain two crops of the Odesskiy-65 potato variety. The planting of seed on irrigated tracts has commenced here. The soil has been supplied with a generous amount of fertilizer -- up to 100 tons of organic fertilizer per hectare. The vernalized seed has been placed in warm ridges. The rich soil and abundant moisture are making it possible to obtain 150-200 quintals of tubers per hectare from an early planting and 150-160 quintals from a secondary planting. The workers in the Black Sea region plan to obtain no less than 80,000 tons of the "secondary grain." [Text] [Kiev PRAVDA UKRAINY in Russian 31 Mar 81 p 2] 7026

BELORUSSIAN POTATO PLANTINGS--Vitebsk--The front of the potato planting operations has advanced into northern Belorussia. The machine operators are working in two and three shifts and combining a high work tempo with a progressive agricultural technology. At many kolkhozes and sovkhozes, the potatoes are being planted in ridges prepared in advance. This accelerated the warming of the soil and it makes it possible to plant the tubers at an earlier date. On their entire area of 380,000 hectares, the oblast's farms are planting highly productive Belorussian bred potatoes, using various varieties having different ripening periods. [Text] [Moscow PRAVDA in Russian 28 Apr 81 p 1] 7026

NEW VEGETABLE METHOD--Vladivostock--Taking into account the recommendations of the far eastern scientists, the farms in the maritime region have commenced sowing radishes, carrots and other early vegetables. This work is being carried out using the multi-strip method only on seedbeds and ridges. This method is a part of a new and scientifically sound technology for growing vegetable crops, developed for far eastern regions. Experience has shown that use of this method serves to raise the cropping power to 200 quintals per hectare. [Text] [Moscow TRUD in Russian 22 Apr 81 p 1] 7026

LATVIAN POTATO PLANS--Riga--With the onset of warm weather, the kolkhozes and sovkhozes of Latvia have commenced their mass planting of early potatoes. The areas set aside for this crop exceed 10,000 hectares. The plans call for the crop to be harvested in the middle of June. For this first year of the present five-year plan, the republic's kolkhozes and sovkhozes have vowed to obtain no less than 155 quintals of potatoes per hectare and to harvest more than 800,000 tons of the "secondary grain." [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 5 May 81 p 1] 7026

POTATO PLANTING COMPLETED--Yakutsk--The sovkhozes and subsidiary farms of industrial enterprises in the Yakutskaya ASSR have completed their potato planting work one week earlier than usual. The work was carried out in an organized manner. [Text] [Moscow KRASNAYA ZVEZDA in Russian 11 Jun 81 p 1] 7026

EARLY POTATO HARVEST--Vilnius--The farms in the southern regions of Lithuania have commenced harvesting their early potatoes. The variety being grown here, Pirmunes, produces 160-170 quintals of tubers per hectare. Fresh potatoes have already been delivered to the trade network for the resort cities. [Text] [Moscow GUDOK in Russian 19 Jul 81 p 1] 7026

PROGRESSIVE POTATO TECHNOLOGY--Vladivostock--A progressive technology is being employed on the entire area of potato fields on farms in the maritime region. It was developed for waterlogged soils in the southern part of the Far East. For the purpose of obtaining an early harvest, vernalization of the seed potatoes and their germination were carried out. This is making it possible to accelerate the ripening of the tubers by almost 15 days. [Text] [Moscow SOVETSKAYA ROSSIYA in Russian 26 Apr 81 p 1] 7026

POTATO HARVEST COMMENCES--Syktyvkar--The farms in the southern regions of the Komi ASSR have commenced digging up their potatoes. This year the potato fields here have been expanded by more than 1,000 hectares. The leading sovkhozes are obtaining 270 quintals of tubers per hectare, or almost two times more than the figure called for in the plan. The "secondary grain" harvest is being shipped to miners and reindeer breeders in the Arctic region. [Text] [Moscow TRUD in Russian 9 Aug 81 p 1] 7026

POTATO SALES TO STATE--Kaluga--The oblast's machine operators have cultivated their potatoes on an area of 50,000 hectares for the fifth time. Based upon the complex use of equipment, they carried out inter-row hoeing in a timely manner and they hilled up and sprayed the plants. This year the Kaluga farmers plan to sell 225,000 tons of the "secondary grain" to the state -- considerably more than last year. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 10 Jul 81 p 1] 7026

TENDING OF POTATO CROP--Bryansk--The mechanized teams on the farms are tending the potato plantings, treating them with chemicals against weeds and pests and applying mineral fertilizers. More than one half of the areas set aside for the "secondary grain" in the oblast have been treated twice. [Excerpts] [Moscow KRASNAYA ZVEZDA in Russian 13 Jun 81 p 1] 7026

BRYANSKAYA OBLAST POTATO HARVEST--Bryansk--The oblast's farms have commenced harvesting their early varieties of potatoes. Trains loaded down with young tubers are being routed to the country's industrial centers. This year the development of the plants was delayed by the dry weather. The potato growers devoted a great amount of effort towards obtaining a good harvest despite these conditions. The carried out inter-row hoeing repeatedly, they applied mineral fertilizer top dressings to the plantings and they treated them against pests and diseases. Irrigation was organized on many tracts. At the Bol'shevik Kolkhoz in Klimovskiy Rayon, for example, 135 quintals of tubers are presently being obtained from each hectare. The oblast's farms plan to supply the state with more than 40,000 tons of potatoes during the month of August. [Text] [Moscow PRAVDA in Russian 9 Aug 81 p 1] 7026

CSO: 1824/413

LIVESTOCK FEED PROCUREMENT

WORK ON IMPROVEMENT IN MEADOWS, HAYFIELDS IN BELORUSSIA REVIEWED

Minsk SEL'SKAYA GAZETA in Russian 4 Aug 81 p 1

/Article by G. Rabtsevich, chief of the division of meadow fodder production of the Belorussian SSR Ministry of Agriculture: "Constant Concern for Meadows"/

/Text/

Course of Work on Improvement in Pastures and Hayfields on the Republic's Kolkhozes and State Farms
(According to Current Data as of 30 July 1981)
(in percent of the plan)

Oblasts	Grassing of pastures and hayfields	Regrassing of pastures and hayfields	Irrigation systems built on meadows	Limed meadows
Brestskaya	70	41	18	79
Vitebskaya	36	56	68	53
Gomel'skaya	64	43	28	57
Grodnenskaya	66	58	34	75
Minskaya	81	44	21	82
Mogilevskaya	70	28	24	41

Our Comment

In the republic as of 30 July grassing was carried out on an area of 75,000 hectares. This is 62 percent of the plan. A total of 160,000 hectares, or 45 percent of the assignment, were regrassed. This work was done best in Minskaya Oblast, where the assignment for an early improvement in natural fodder land was fulfilled 81 percent and in Grodnenskaya Oblast, 66 percent respectively.

Special mention should be made of the good work on improvement in fodder land on farms in Miorskiy Rayon, where the annual grassing and regrassing plan has already been completed. Kolkhozes and sovkhozes in Gantsevichskiy, Luninetskiy, Gomel'skiy, Zhlobinskiy, Volkovysskiy, Novogrudskiy, Mogilevskiy and Cherikovskiy Rayons have also coped with the plan for a fundamental improvement in land.

But in Vitebskaya Oblast the situation is extremely unsatisfactory. This work has been carried out only on one-third of the areas. Farms in Ivanovskiy, Berezovskiy, Verkhnedvinskiy, Oktyabr'skiy, Mozyrskiy, Chervenskiy, Kruglyanskiy and Klimovichskiy Rayons fail to fulfill the plan. Contracting organizations, which delay the transfer of land for grassing, are primarily to be blamed for this. Work on the regrassing of improved meadows is carried out slowly. On kolkhozes and sovkhozes in Mogilevskaya Oblast the assignment was fulfilled 28 percent. The situation on farms in Brestskaya and Gomel'skaya Oblasts is not much better. In Korelichskiy, Berezinskiy, Khoynikskiy, Bykhovskiy and Slavgorodskiy Rayons thus far only some farms have begun regrassing.

Kolkhozes and sovkhozes in Pruzhanskiy Rayon do not manifest proper concern for meadows. Despite the fact that significant volumes of work on improvement of meadows have been carried out in the last 5 years, the state of their amelioration is very poor. Owing to this 3,400 hectares of such land were again converted into natural land during that time. The area of improved pastures and hayfields on the Sovetskiy Pogranichnik Kolkhoz was reduced by 410 hectares, on the Rassvet Kolkhoz, by 243 hectares and on the Kolkhoz imeni Sverdlov, by 156 hectares. The bushiness of meadows increased on 12 farms in the rayon and swampiness, on eight farms and, on the whole, the hayfield area in the rayon was reduced by 2,140 hectares.

The mineral fertilizers applied to meadows are totally insufficient. On the Iskra Kolkhoz this year only 19 kg of mineral fertilizers, including 5 kg of nitrogen fertilizers, were allocated for topdressing and on the Kolkhoz imeni Lenin and on the Krasnyy Mayak Kolkhoz, 4 kg of nitrogen fertilizers, while on the Zarya Kolkhoz and on the Trud Sovkhoz they were not allocated at all. It is not surprising that the productivity of fodder land does not exceed 12 to 13 quintals of fodder units per hectare.

The situation with the utilization of pastures is not better. During the spring period not all of them were promptly topdressed and harrowed. Only one-third of the stockyards were fenced off and eight farms did not even consider doing this. On the whole, 3,500 out of the existing 16,000 hectares of improved pastures were fenced off. On 10 farms there are no electric fences. The uneaten remains are not mowed everywhere. This is obvious mismanagement. As a consequence, during the first half-year the milk yield per cow was lowered by 360 kg as compared to the same period last year.

The harvesting of perennial cereal grasses is being completed. Their crop is not bad. This means that there are seeds on the republic's farms. It is only necessary to clean and put them to use more rapidly.

Special concern for pastures must be manifested. The fact that on many kolkhozes and sovkhozes they are not mowed down and fed after grazing must not be tolerated. It must not be forgotten that topdressing with fertilizers in doses of no less than 30 to 40 kg of nitrogen and 40 to 60 kg of potassium per hectare in active substance should be the basic and mandatory agricultural method for all grasses. For these purposes, in addition to solid mineral fertilizers, it is necessary to use liquid manure and ammonia water. But this work is delayed intolerably.

Now, when the first cutting of grass has been completed, the most favorable period for an intensified grassing and regrassing of hayfields and pastures has arrived. It should be remembered that on degenerated meadows, in addition to a decrease in the yield, the quality of procured fodder declines sharply and the coefficient of edibility of the grass stand on pastures decreases. In such a case even the applied mineral fertilizers do not produce the expected effect.

Areas should be reseeded after a 1- or 2-year cultivation of annual crops and the sowing of grass on cultivated sod. Regrassing makes it possible to have a valuable and highly productive grass stand as early as the summer of the following year.

Special attention should now be given to regrassing with leguminous grasses. They should be sown before 10 August, otherwise they will be poorly developed in winter and will not survive until the spring. Cereal grasses that are not very winter-hardy should be sown at the same time. They include pasture rye grass and cock's foot. For other types of cereal grasses the optimum time for summer sowing ends in August. Owing to the precipitation in August, perennial grasses sown at this time produce good sprouts, have time to thicken out well and to develop a strong root system and are able to form a large ground mass during the following year.

The selection of grass mixtures is very important. For example, cock's foot, pasture rye grass and red clover should not be sown on flood plain and awnless brome grass, lucerne and cock's foot should not be placed on poorly drained land. Meadow foxtail, slogh grass, alsike clover, fowl meadow grass and other moisture loving grasses should not be placed in dry valleys, especially with a light mechanical soil composition.

For hayfield use top-type grasses are sown and components of the grass mixture with the same early ripening are selected. When pastures are established, species with a good capacity for growth after being mown or grazed over, resistant to trampling and, at the same time, differing in vegetation phases are selected.

Intensive grass species--cock's foot, awnless brome grass, canary grass, reed fescue, red clover, lucerne and some others--should be sown in pure form, that is, one-species sowing. However, perennial grasses--awnless brome grass, canary grass and similar grasses--reach full development during the second year of use. Therefore, a small amount of another more rapidly developing component should be added to these species. For example, awnless brome grass is sown in a mixture with timothy grass, lucerne with red clover, cock's foot or timothy grass and so forth.

How to use freshly harvested seeds for summer grassing? Usually, they are not ripe physiologically. In order to make them suitable for sowing, it is necessary to subject them to intensive air and thermal heating within 5 to 8 days and to increase the seeding rate by 15 percent during sowing.

11,439
CSO: 1824/414

LIVESTOCK FEED PROCUREMENT

HAY PROCUREMENT PLANS UNFULFILLED

Moscow SEL'SKAYA ZHIZN' in Russian 31 Jul 81 p 1

[Article by M. Glinka, livestock specialist: "And the Grass Has Not Yet Been Mowed..."]

> [Text] The Central Statistical Administration USSR reports that sown and natural grasses have been cut in the first haying on 58.3 million hectares. Hay in the amount of 43.6 million tons and haylage in the amount of 43 million tons have been procured, around 22 million tons of silage mass has been stored, and 9.2 million tons of ready silage has been obtained. Artificially dehydrated feeds amounting to 3.9 million tons have been produced.

The Central Statistical Administration USSR has prepared its regular summary report on the course of the procurement of feed on the kolkhozes, sovkhozes, interfarm enterprises, and other state farms. At first glance the figures are gratifying: by 27 July 10 percent more sown and natural grasses had been cut in the first haying than at the same time last year, hay procurement increased by 41 percent, and silage and grass meal procurement by 10 percent. Notes of pride are being sounded more and more often in the newspapers and on radio broadcasts: just look at what good work is being done now by feed procurement workers. Yet, there are no grounds as yet for being triumphant. The comparison is being made with last year, a difficult one, when substantially less fodder was laid away than was needed.

Herd productivity is the best indicator of the feed base. And, in comparing today's results with last year's, it must in no way be forgotten that during the wintering based on the feed stocks of that time milk yields and the production of milk decreased by two percent compared to the previous stall period. And average weight of the livestock delivered for slaughter also decreased.

The indicators of the fulfillment of the feed accumulation plan and of the feed level per head of livestock can serve as a more accurate criterion of the course of fodder procurement. It is precisely this kind of control that has been set up by the state statistical service of the Lithuanian SSR. The republic's Central Statistical Administration supplies the leaders of the rayons and farms with data which makes it possible for them to obtain an objective picture of the course of the most important operations and, this means, to take the necessary measures in time in case of necessity. For example, Panevezhskiy and Shal'chininskiy Rayons. In both places all of the grass has been harvested. But whereas in the former the hay procurement plan has been fulfilled by 110 percent, in the latter it has been fulfilled by only 76 percent. Per conventional head of livestock 7.3 and 3.5 quintals of feed units, respectively, has been procured.

To date the hay procurement plan has been completed by only one union republic--the Ukraine. Farms there have procured more than 4.7 million tons of this feed. The mechanization specialists of Kirgiziya have fulfilled their assignment by only 39 percent, those of Armenia by 33 percent, and those of Georgia by 16 percent.

In the Russian Federation 19.6 million out of a planned 33.9 million tons of hay has been procured, and the plan has been fulfilled by only 58 percent. The haying tempos are decreasing with each passing day. But far from all of the grass has been cut, and in many places even the first haying has not been completed. Thus, in Arkhangel'skaya Oblast natural and sown grasses have been cut in the first haying only on half of the planned areas, in the Kalmyk ASSR--on 46 percent of the planned areas, and in the Dagestan ASSR--on 47 percent.

It cannot be denied that the conditions for the procurement of feed which have developed this year are not easy ones. But practically in any rayon there are quite a few farms which have proven by their example that good organization, efficiency in work, the skillful use of reserves,and the timely maneuvering of equipment are able to successfully stand against both drought and prolonged rains. The mechanization experts of the "Sadovod" sovkhoz in Yalutorovskiy Rayon, Tymenskaya Oblast, have already completed the hay procurement plan and are successfully storing haylage. But in the oblast as a whole the hay procurement assignment has been fullfilled by only 47 percent, while that for haylage has been fullfilled by 36 percent. At the same time, grass in the oblast has not been mowed on more than half of the areas. In this situation it is extremely important to increase the productivity of the equipment and the labor involved in haying. On the farms of the Tyumen' there are 50 roto-balers with which 2000 tons of hay a day could be procured. But this modern equipment, like the 700 old-model balers, is being used extremely unproductively.

Balers are also standing idle on a number of farms of the Komi Autonomous Republic. The poor use of equipment and major shortcomings in the organization of labor have led to the fact that also the grass cutting has been fullfilled by only 46 percent and only 43 percent of the planned amount of hay and 34 percent of the planned amount of haylage has been procured. A week ago the bureau of the party obkom discussed the progress of feed procurement in a number of rayons in the autonomous republic. However, no important changes have occured yet.

The same reason--the unsatisfactory use of equipment--is holding back the accumulation of feed on the farms of Tymenskaya Oblast. In Bol'shesosnovskiy Rayon, for example, during the second ten days of July only 72 out of 176 tractor mowers were working, and in Yurlinskiy Rayon less than 25 percent of the machinery came out on to the meadows. But even this equipment was used extremely unproductively. The situation is the same in a number of other rayons. It is not surprising that in the oblast as a whole only 51 percent of the planned amount of hay and 26 percent of the planned amount of haylage has been put into storage.

Under the difficult conditions of this year it is extremely important to organize work in such a way that not a single section of grass remains uncut. It is essential to cut everything that has grown in inconvenient areas, in forests, near lakes and swamps, at roadsides, and along railroad rights of way. The procurement of feed at these places is made difficult by the fact that it is by no means always possible to use equipment there, while there are not enough people for hand mowing. It is therefore all the more important to bring the entire able-bodied population into the haying. A good example in this respect has been shown by the inhabitants of the village of Solopenki in Aleksinskiy Rayon, Tul'skaya Oblast, who decided at a village meeting to pick up this important matter, as they say, as an entire community in order to fully supply the local "Aleksinskiy" sovkhoz with fodder. The ispolkom of the rural Soviet and the sovkhoze administration saw to it that the work was well organized, organized the reception and transportation of the procured feed efficiently, and did not forget about fodder for the livestock of the local inhabitants. Personal examples in labor were demonstrated by the leaders and specialists of the farm and by the chairman of the ispolkom of the rural Soviet. Both young and old came out for the haying. In a short time seventy additional tons of hay, 1000 additional tons of silage, and 73 additional tons of grass meal were procured. Those who brought in more grass than others were festively awarded Certificates of Honor. There are quite a few such examples in Tul'skaya Oblast. It is not accidental that the first haying was rapidly completed here, with the hay procurement plan fullfilled by 97 percent.

The population of Ivanovskaya Oblast is participating in this responsible campaign just as well. The inhabitants of this worker's region have responded to the party organization's call by coming out together for the feed procurement. An atmosphere of intolerance towards the slightest manifestations of disorganization in the haying has been created in the oblast, and the work of the village workers and of their patrons from industrial enterprises has been skillfully organized. With the task having been set of cutting all the grass in forests and in swampy and inconvenient sections, concern has been shown here for providing good moral and material incentives for people; in particular, high rates have been set for the procured hay, family and group piece-work is thoroughly supported, mowers have been provided with housing, tools, and equipment, hot meals have been organized, and so forth. Here is the result of this kind of approach--the oblast was one of the first in the RSFSR to complete the first haying, and the hay procurement plan has also already been fulfilled by 97 percent.

Feed procurements are in full swing. The intensity of the work in the meadows and the fields must not be slackened for the single day. To procure and preserve everything that has been grown---this is the task of the day.

2959
CSO: 1824/396

LIVESTOCK FEED PROCUREMENT

HAY PROCUREMENT, STORAGE IMPROVEMENTS URGED

Moscow SEL'SKAYA ZHIZN' in Russian 18 Jul 81 p 2

[Article by VASKhNIL member K. Solntsev, director of the All-Union Stockraising Institute: "Feed Resources and How They Are Being Used"]

[Text] Over the ages, a tradition has evolved of beginning feed procurement with the hay mowing. In fact, gathering the first cutting on time is a reliable guarantee of a good second cutting, and in a number of zones where grasses grow back quickly -- of a good third cutting.

In recent years, many farms have been increasingly concerned about improving hay quality and increasing procurements, and understandably so: experienced stock-growers place a high value on the role of hay in increasing dairy productiveness, and it is rightly considered one of the best feeds. As is known, it increases rumenous digestion, normalizes metabolism and facilitates raising milk yields and calving. Maintaining cows on silage alone, without hay, reduces feed edibility, decreases milk yields and lowers milk quality.

This is why laborers in the Moscow suburbs have set themselves a high level of hay production -- two tons per cow. In choosing the technology, they have been governed by experience, which has shown that the best results are provided by active ventilation using unheated air, but with the cut grass sun-dried ahead of time. This method is simple, reliable and economical. It enables us to increase fodder unit output by 10-15 percent, protein yield by 20-25 percent and carotene content two-fold.

What are the practical results? For many years now, all the hay on the Moscow suburban "Zarya kommunizma" sovkhoz has been prepared using active ventilation in sheds. In the last five-year plan, cow productiveness was raised here from 4,752 to 5,124 kilograms of milk per year, reaching nearly 6,300 kg and 3.84 percent fat in the purebred nucleus. Farm stockraisers attribute their success largely to the primary factor, constant improvement in the quality of hay, succulent and summer green fodder.

A direct connection has been established between the quality of the hay fed cows and the consumption of mixed feeds at various levels of cow productiveness. Thus, when good hay is fed them, 1.5 kg of mixed feed is required to obtain 10 kg of milk, but with average-quality hay twice as much is required. For milk yields of 15 kg, we need 3.5 and five kilograms of mixed feed, respectively.

A similar pattern is observed in pastures. On a good pasture, for a 16-kg per day milk yield the mixed feed supplement need not exceed 2.7 kg, but on an average pasture, it increases to 4.3 kg. On pastures with satisfactory grass stands, about 100 grams of mixed feed per kilogram of milk is ordinarily added to the rations of cows with a daily milk yield of 8-10 kg. And that mixed feed is not required at all when the grazing is done in good pastures, ones from which a cow at that level of productiveness eats 50-55 kg of grass with greens mixed in per day.

However, an analysis of the operation of many farms testifies to flagrant disregard for coarse and succulent fodder quality. Poor hay, haylage, silage and straw quality must be compensated for by high norms of mixed feed concentrates in rations. This practice has led to a situation in which up to 400 grams of feed concentrate was spent per kilogram of milk produced last year, on average.

We also cannot but be alarmed by the results of an analysis of the coarse feed structure. The proportion of hay in rations has dropped by more than a third. It is in our interests to restore its level in the feed balance. A ton of hay per untethered cow is a minimum below which we must not go.

In all zones, development of a comprehensive program of balanced fodder base development must rely on the efficient system of using all fodder land, both traditional and nontraditional resources. It is very important to follow a course towards more and better use of summer green fodder, towards procuring a large quantity of coarse and succulent fodder, everywhere.

The intelligent use of fodder resources is organically linked to the quality of hay, haylage, silage, grass meal, feed straw, summer green feed, pasture and concentrates. We have quite a few kolkhozes and sovkhozes on which stockraising is provided fully with a variety of feed each year. But stockraising productiveness is rising slowly, even on these farms, remaining low due to the poor quality of the feed procured. Over the last three years, only half the total amount of hay, haylage and silage procured was of grade I or II. The enormous losses of feed quality have a serious effect on stockraising productiveness, on reproduction of the herd and on retaining young stock.

One effective method of reducing losses and retaining high feed quality is to keep feed in storage facilities. However, good, substantial feed storage facilities are being built slowly. If they continue to be put up at the same rate as now, many years will be required to install them, and we will fail to obtain large amounts of milk, meat and other farm products.

Unfortunately, even with our huge network of scientific institutions, neither the country's Ministry of Agriculture nor the VASKhNIL [All-Union Academy of Agricultural Sciences imeni V. I. Lenin] yet has an institute to conduct thorough experimental research on improving existing feed storage capacities and designing new ones.

Experience has shown that storage in piles, mounds and earth trenches also entails enormous losses of feed and poor feed quality. At the same time, only one type of storage is recommended for haylage and silage for all zones -- trenches to hold 500 to 10,000 tons. At the same time, any trench is a huge, open area which collects water and which cannot protect feed from water's washing away nutrients, especially in high-moisture zones. The ordinary method of filling trenches with the raw material and then having transport drive back and forth right over the trench is associated with considerable soiling of the haylage and silage and thus with feed spoilage.

We also need to improve hay storage. Everything we have or are building -- barns, sheds, haylofts -- is a carry-over from peasant building experience. The time has come to energetically correct this very important link in the feed conveyor. The raw material shop of stockraising needs modern, mechanized, inexpensive, convenient storage facilities for hay, silage, haylage and straw which will ensure their long-term storage without losses.

Heretofore, the quality of hay, haylage and silage was evaluated on a grading system not linked to evaluating their overall nutritional value or digestible protein content. In order to calculate the provision of stockraising with feed, we use nutritional value normatives for grade I hay, haylage and silage. This impermissibly overstates the nutritional value of the feed procured by assuming it is all grade I. At the same time, livestock consuming the feed are able to produce output only from accessible nutrients. If a ration corresponds to the accepted norms only in terms of weight, but contains less energy and digestible protein in terms of nutritional value, the productiveness of the animals drops sharply. Therefore, we need to be governed by the actual nutrient content of the feed, and not just by their weight, in order to objectively plan the production of milk, meat and other output and to correctly calculate expenditures on creating it.

The extent to which such an approach changes plans for feed production can be seen using last year as an example. The haylage procurement plan was fulfilled by 98 percent in terms of bulk, not considering nutritional value or quality, but only by 78.8 percent when quality was included. For silage and hay, the differences were 19.5 and 13.3 percent, respectively.

We propose it would be in our interests, along with recording feed in bulk (tons), to simultaneously set up a system for recording them on the basis of actual feed nutrient content and by quality grade on farms and in rayons, oblasts and republics. This method of evaluation would require of everyone concerned a more active fight to improve feed quality. It would permit a more objective evaluation of the provision of stockraising with feed and a realistic judgement of opportunities for meeting plans for the production of milk, meat and other foodstuffs.

The reduction in feed quality is associated with losses in its energy value, with depreciation of the whole complex of nutrients and physiologically active substances. As a result, farms try to make up for poor-quality hay, haylage, silage and grass meal by feeding higher feed concentrate norms. This has unfortunately become traditional for many farms and entire rayons. And they are so used to this practice that many cannot imagine working in a different way.

However, even a high level of concentrates expenditure combined with coarse and succulent feeds of poor quality does not ensure balanced rations in terms of basic nutrients. Moreover, metabolism is often upset in the animal, especially in lactating cows. It has now been established that a high proportion of concentrates in rations for cows does not ensure growth in their overall milk productiveness. This is why high-quality coarse and succulent feed is the most effective way of increasing the productiveness of dairy livestock.

Chemical preserving has now taken on special significance. Its primary aim is to ensure high-quality silage and hay from any green fodder. Our institute, jointly with other scientific institutions, has concluded an important stage in its research and has, on its basis, worked out recommendations on the chemical preservation of green fodder. As compared with ordinary silage, each ton of chemically preserved fodder contains 30-40 more fodder units, 5-8 kg more protein and 15-20 kg more sugar. There is nothing astonishing about this, since chemical preservation reduces nutrient losses two- to three-fold. However, the big plans for chemical preservation have thus far been implemented extremely slowly, due to a lack of special facilities for storing and transporting the preservatives, as well as machinery for applying them to the bulk feed.

In drawing up plans for stockraising output, what portion of gross output must be ensured through growth in the number of head and what by increasing herd productiveness must be determined precisely for each farm. This is one of the most important factors actively influencing feed use efficiency. In this regard, the experience of Uzbekistan stockraisers seems instructive to us. Here, gross milk production increased 211 percent from 1965 through 1980, with growth in the number of cows.

But there are also quite a few instances in which the entire increment in milk production has been achieved due solely to growth in the number of cows, while dairy herd productiveness remains at a low level, although the genetic potential of the animals is used by only 60-70 percent.

Of course, a patterned approach cannot be used in resolving the complex task of increasing stockraising output, especially when referring to a rayon, much less to an oblast or republic. Even each farm has its own specific features, and they must be taken into account. Otherwise, it would be impossible to run stockraising intensively, and that means profitably.

11052
CSO: 1824/388

REGIONAL DEVELOPMENT

DEVELOPMENT OF AGRARIAN POTENTIAL OF TYUMEN AREA ADVANCED

Moscow SEL'SKAYA ZHIZN' in Russian 2 Aug 81 p 2

[Article by N. Chernukhin, secretary of the Tyumenskaya Oblast CPSU Committee: "Using Local Resources"]

[Text] Tyumenskaya Oblast land. Today these words conjure up a picture mainly of gas and oil workings and many kilometers of pipeline -- everything that gives our kray the right to be referred to as the country's main fuel and energy base. The workers in Tyumenskaya Oblast are striving to achieve a daily output, by the end of this current five-year plan, of 1 million tons of oil and 1 billion cubic meters of natural gas. The young cities of the gas and oil workers continue to undergo further development. By 1985, the oblast's population must increase by still another 400,000-500,000 individuals.

And this means that similar growth must take place in the agricultural department of our Tyumen land. In following the program outlined during the 26th CPSU Congress and in carrying out the programmed conditions set forth in the report delivered during the congress by Comrade L.I. Brezhnev, the oblast's party, soviet and agricultural organs will in the future strive to satisfy more completely the population's requirements for food goods based upon the local production of such goods.

Agriculture is developing in a stable manner throughout the oblast and in the absence of those sharp changes and disruptions which occurred in the past. During the Tenth Five-Year Plan, gross agricultural output for all categories of farms increased by 9.5 percent compared to the Ninth Five-Year Plan and in the public sector -- by 15 percent.

But the rate of growth for the population at the present time is such that the scale of internal milk and meat production cannot keep pace with the increasing requirements and thus the funds allocated to the oblast for these products are being covered partially by means of imported goods. By no means are we of the opinion that all internal reserves for increasing the production of milk and meat have been completely exhausted. In April, during a plenary meeting of the oblast party committee, a vast program was prepared for the further development of all elements in the agroindustrial food complex.

A maximum amount of attention is being concentrated on increasing the production of grain and feed. A hectare of Tyumen land is capable of producing a high return provided concern is displayed for raising the intensity of its use, improving the overall culture of farming, organizing the production of seed and the selection of varieties in a thrifty manner, adding organic materials to the soil and making more efficient use of mineral fertilizers. Our farmers learned these facts based upon the operational experience of the Zavodoukovskoye Experimental-Production Farm, where during the Tenth Five-Year Plan the grain crop yield exceeded 38 quintals and where last year 44 quintals were obtained from each of 11,000 hectares.

Many similar examples could be cited. For example, the Krasnyy Oktyabr' and Pamyat' Kalinina Kolkhozes in Zavodukovskiy Rayon, the 40 Let Oktyabrya Kolkhoz in Isetskiy Rayon, the Yemurtlinskiy, Kommunar and imeni Sverdlov Sovkhozes and a number of other farms have for a long time been obtaining 25-35 quintals of grain per hectare, whereas the average yield for the oblast during the five-year plan has been 15.4 quintals. In order to overcome such a difference in yields, the true path to be followed for increasing the gross yields of grain is that of studying and introducing into operations on an extensive scale the experience of leading workers. It bears mentioning that this does not require great additional capital investments.

In view of the fact that grain forage grain crops are furnishing the highest yields in the oblast, improvements must be carried out in the structure of the grain crop areas and in seed production and the construction of seed production plant complexes must be accelerated, complexes which will guarantee the production of 1st class seed under any weather conditions. However, it will be impossible to solve the established task -- that of reaching a production level of 2.1-2.2 million tons of grain by the end of the five-year plan -- merely by raising the cropping power alone. It will also be necessary to increase the areas under crops. During the Eleventh Five-Year Plan, we plan to increase our use of arable land by 200,000-250,000 hectares. This will require considerable effort on the part of the kolkhozes, sovkhozes, the services of Sel'khoztekhnika and Sel'khozkhimiya and especially the land reclamation specialists.

The Soyuztyumen'vodstroy Production Association of the USSR Ministry of Land Reclamation and Water Resources has been created in the oblast. It bears mentioning that it still does not possess the construction base which would allow it to implement an all-round program for intensifying the utilization of land areas.

Today the natural lands of a farm are furnishing two times less feed than that being obtained from continuously cultivated land or, even moreso, from arable land. A weak feed base is restraining the development of public animal husbandry. On the average, no more than 12 quintals of feed units of coarse and succulent feed are being procured per standard head. And indeed we have many examples showing how the reclamation of low productivity lands is making it possible, within a brief interval of time, to double and triple their yields. We believe that the availability of a tremendous land reclamation fund and the ever increasing need for food products for the oil and gas workers demand that the USSR Minvodkhoz [Ministry of Land Reclamation and Water Resources] devote greater attention to the development of land reclamation operations throughout the oblast.

Under our conditions, special importance is attached to achieving balanced planning for the production and procurements of agricultural products. During the past five-year plan and compared to the ninth, the oblast's kolkhozes and sovkhozes increased their production of grain by 23 percent and grain procurements increased by more than 40 percent. It is noted that during this period of time the number of swine increased by one and a half times.

We are growing mainly forage grain and the entire volume of procurements is being processed by our enterprises of the mixed feed industry. Of 700,000 tons of mixed feed produced by them, approximately one third is being shipped beyond the borders of the oblast. It turns out that feed is being exported while at the same time animal husbandry products which are in short supply are being imported. Moreover, the kolkhozes and sovkhozes, even though only a small quantity of grain forage is available for animal husbandry, are having to feed it to the animals in unbalanced form. If the situation was different the farms could produce an additional quantity of meat locally, meat which today they are being forced to import from other krays and oblasts and they could also increase their milk production considerably.

In conformity with the well known instructions handed down by the party and government, a long-term program for specialization and concentration of agricultural program has been developed and is being implemented throughout the oblast. The modernization and construction of farms made it possible to convert two thirds of all milk production over to an industrial technology. The specialized fattening farms of the Tyumen'skotoprom Production Association, which fulfill the functions of rayon interfarm enterprises, have been strengthened noticeably. Based upon interfarm cooperation, improvements have been realized in the specialized raising of heifers. More than one third of commodity swine breeding in the oblast is concentrated at eight large-scale enterprises of the Svinoprom Trust.

The highest level of concentration has been achieved in poultry production. Within the oblast, 2.5 billion eggs were produced in the public sector during the five-year plan, of which amount 2 billion were produced at the Borovskiy Poultry Factory. Here the advantages of concentration and advanced technology have influenced not only the scales of production (the factory has more than 1.8 million laying hens) but also the efficiency of such production. The production cost for 1,000 eggs is 36 rubles, the feed expenditures for such an amount of output -- 156 feed units. The buildings of the Tyumen Broiler Factory, which supplies more than 4 million broilers annually, were erected within a short period of time alongside the oblast center.

The production of potatoes and vegetables is concentrated mainly in the southern part of the oblast, in the suburbs of Tyumen for the most part. The agroindustrial association that has been created will supply 85 percent of the vegetables being produced at kolkhozes and sovkhozes throughout the oblast.

At the specialized farms, the required production base is being created and storehouses, moorings and railroad sidings are under construction. This will facilitate the shipping of products to regions in the north. We consider it advisable in the future to place a considerable portion of the potatoes and vegetables in storage for cities in the north and for worker settlements at the same specialized farms where they were produced. Here it is easier to ensure their preservation and during the hot period of the year the harvest work is carried out with a considerable gain in time. During the next three years, the industrial main administrations and trusts, together with the rural builders, intend to erect 35 potato storehouses, 42 sorting points and 36 vernalizers for seed.

At the same time, measures are being undertaken aimed at constructing and expanding the hothouse economy in the northern cities and at worker settlements. The plans for this area call for not less than 1 square meter of winter hothouse space per resident by the end of the five-year plan. In the regions of Nadym, Novyy Urengoy and other cities, the plans call for the creation, based upon cooperation, of vegetable farms for the production of products on sheltered ground. Experience is already available for the construction of hothouses directly at compressor stations, with use being made of exhaust heat.

The development of the subsidiary farms of enterprises in the middle and lower Ob' River regions will make it possible to improve considerably the supply of food goods for the population. The oil and gas production associations at Surgut, Nizhnevartovsk, Nefteyugansk and Uray have become pioneers in carrying out such work. Considerable quantities of vegetables, milk and eggs are being produced at four sovkhozes of Glavtyumen'neftegaz. True, this main administration has recently relaxed its attention with regard to agricultural development and the production of locally produced goods is not increasing but rather it is decreasing per worker in the branch. The rates of development for subsidiary farms at the Tyumen'gazprom Association have been gratifying. Last year, at the URS [Administration of Workers' Supply] for this association, 21-23 kilograms of meat and milk and 108 eggs were produced per worker in addition to the funds allocated. A construction trust for erecting agricultural installations was created here.

In the development of subsidiary farms on Tyumen land, greater activity should be displayed by the ministries of the oil and gas industry, geology, power engineering and the construction of enterprises of the oil and gas industry.

The sovkhozes of the RSFSR Ministry of Agriculture, located in the northern zone of Tyumenskaya Oblast, require further development.

In July of last year, SEL'SKAYA ZHIZN', in publishing a series of articles entitled "Oil and Land," indicated quite fairly that a number of ministries and departments engaged in directly servicing agriculture should display greater concern for ensuring that the agrarian base of the Tyumen national economic base does not fall behind in its development, with regard to the rapid mastering of the natural resources available in the middle and lower Ob' River regions. It would be wrong to state that no changes have taken place for the better. But one circumstance is rather alarming: the reorganization of villages which are in special need of such work is being carried out very slowly and unless this work is completed it will be impossible to create stable labor collectives.

The rural construction subunits must make a worthy contribution towards the carrying out of this work. The Tyumen construction workers, similar to the land reclamation specialists, have a rather weak production base. During the past five-year plan, Tyumen'sel'stroy fulfilled its plan for construction-installation work in the rural areas by only 85 percent. It is clear that the RSFSR Ministry of Rural Construction must display concern for strengthening the construction base in the oblast and it must do so taking into account the need for building more housing space and installations of a social and cultural nature.

The oblast party organization is directing the efforts of the collectives of workers and kolkhoz members and also farm leaders and specialists towards achieving a maximum return from each hectare of land and it is devoting daily attention to solving those tasks advanced during the 26th party congress with regard to developing the agroindustrial production complex.

7026
CSO: 1824/431

AGRO-ECONOMICS AND ORGANIZATION

UDC 339.3+63

AGRICULTURE'S SHARE IN NATIONAL INCOME PRODUCTION, CONSUMPTION

Moscow VESTNIK SEL'SKOKHOZYAYSTVENNOY NAUKI in Russian No 7, Jul 81 pp 88-99

[Article by VASKhNIL Academician V.A. Tikhonov, Institute of Economics of USSR Academy of Sciences: "Agriculture's Share in Production and Consumption of National Income"]

[Text] The problem of national income and its rates of growth is acquiring greater importance with each passing year. As a most important part of the final product, national income is an absolutely predominant source for savings and it serves as a principal criterion for production efficiency. Thus extreme importance is attached to ensuring that the true share of each branch of material production in the creation of national income is reflected in the system of accounting in the most complete and accurate manner possible.

The statistical accounting system which has existed over a period of many years by no means fully meets this requirement. The role played by some branches and their overall groupings in the production of national income is exaggerated and that of others -- understated. The latter applies most of all to agricultural production.

The economic mechanism of interbranch interaction in the agrarian sector of the economy has developed in a manner such that the predominant portion of the surplus product created in agriculture is sold by the state not directly but rather through the system of inter-branch exchange and is accounted for not in the sphere of its creation but rather in the sphere of its realization, that is, in the industrial branches which process the agricultural products.

The proportion of agricultural net output in the country's national income for the 1976-1979 period, computed in accordance with the statistical reference books of the USSR CSA, amounted to an average of 17.4 percent. At the same time, this indicator, quoted in other authoritative sources, equalled 28.4 percent (taking into account the turnover tax as a portion of the net income realized in the prices for industrial products) [1]. It is noted quite fairly in economic literature that "...the proportion of net agricultural output in the national incme, computed in effective prices and prices which are close to the cost, differs by a factor of from 1.5 to 2 [3]. This difference is explained by the existing system involving the economic mechanism for withdrawing differential land rent for the benefit of society, represented by the state. The amount of rent received annually by the state is considerable. Computed using different methods, the proportion of farming in the turnover tax in 1965 was 62 percent, in 1970 -- 61.5, in 1975 -- 56 and the average for the 1976-1978 period -- 54.9 percent. This means that roughly 42 billion rubles worth of net product produced annually in agriculture over the past 3 years were accounted for not at the place where it was created (agricultural production), but rather at the place where it was developed and sold (branches which process its products).

A question arises as to whether or not it makes sense, in the case of planned and regular social reproduction, to take into account the amount of net product, particularly surplus product, which adequately reflects its true sources? On the one hand, it would seem that no special requirement exists for such accounting, since under these conditions a portion of the surplus product created in each branch must accumulate one way or another in the centralized net income of the state, which utilizes it for satisfying the requirements of expanded reproduction and for solving national tasks in conformity with the social goals for developing society.

On the other hand, however, one must not overlook the fact that each branch of the socialist national economy appears as a relatively independent and complete economic system and functions on the basis of cost accounting individualization. The inter-branch economic relationships are realized in a commodity form. In any case and particularly when resources are limited, one of the most important quality characteristics for the activities of each branch is branch efficiency. In the case of all methods employed for measuring it, one of the principal indicators is the amount of net product and that portion of it which reflects the surplus product. By no means is the state indifferent to how efficiently the production resources are consumed or the degree to which the additional resources allocated are reimbursed in the form of the surplus product created. In the final analysis, it is precisely this factor that determines the rates for expanded reproduction and economic growth for society as a whole.

Hence, an accounting system for the amount of surplus and net product created which accurately reflects true reality can and must serve as one of the reference points for the planned inter-branch distribution of social resources, those introduced additionally into social reproduction. Certainly, this is not meant to negate the importance of the social goals and tasks, in behalf of which the net product of the various branches is distributed. At the same time, economic growth represents the only means for realizing the social goals. And the higher the rates, the more success is realized in achieving the goals of social development. It is believed that it is precisely for this reason that, in recent years, researchers and also workers attached to planning organs have displayed increased interest in that information which reveals the true role played by the various branches of the national economy in forming the country's national income.

Various methods are being employed for determining the complete amount of net product created in agriculture. However, during the past few years the majority of the researchers and practical workers have been using the Marxist theory of the cost of labor as the methodological basis for their computations. In USSR Gosplan and the USSR CSA, the full amount of the national income created for the country and the entire amount of live labor employed in social production are used as the initial base. In the process, live labor is measured as the total amount of the wage fund and this makes it possible to reduce the various types of labor to simple labor.

This method is attractive from the standpoint of its simplicity. It makes it possible to take a considerable step forward from the standpoint of measuring more accurately the amount of net product created in various branches of the national economy. At the same time, it does not provide a guarantee against inaccuracies associated with possible deviations in the wage level in the various branches or against its degree of complexity. The proportions and peculiarities of interbranch exchange are not being fully taken into account. To a certain degree, these shortcomings are being smoothed out by a method developed at the Institute of Economics of the USSR Academy of Sciences. The amount of newly created value, realized in the final product of the USSR agroindustrial complex, is accepted as the initial base [4]. The structure of the APK [agroindustrial complex] includes branches which participated directly in the creation of its final product: field crop husbandry, animal husbandry, food, meat and dairy and milling-groats industries, a number of branches of light industry specializing in the processing of agricultural raw materials, mixed feed industry, wholesale and retail trade (including public catering), transport and communications -- to the degree that they all participate in the production, processing and sale of agricultural products and the products obtained from the processing of agricultural raw materials. The net product of those branches which supply these branches with the means of production of an industrial origin is taken into account in those areas where it is created and sold, that is, in industry.

The information provided in published inter-branch balances, current statistics and the annual reports of sovkhozes and kolkhozes are making it possible to compute rather accurately the principal production parameters for the totality of branches in the agroindustrial complex. During the 1966-1975 period, for example, they consumed 47.4 percent of all current material resources and 40.1 percent of the wage fund for workers in material production. The average annual volume of net product created in the sphere of production, processing and sale of agricultural products was 124.7 billion rubles, or 43 percent of the country's national income and the proportion of these branches in surplus product produced -- 49.3 percent.

Attention is being focused on the considerable difference existing in the level of cost accounting profitability. Whereas in all areas of material production throughout the country the ratio of net income to production costs is 25.8 percent, in those branches engaged in the production, processing and sale of agricultural output and the products obtained from the processing of such output -- 28.1 percent. A great difference still exists in the branch level of profitability within the agroindustrial complex: during the 1966-1975 period, the profitability level in agricultural production was 11.3 percent and in the branches which process agricultural output -- 33.1 percent. In other words, statistics reveal that 29 million average annual agricultural workers earn 8.6 billion rubles of average annual net income, whereas 10.9 average annual workers engaged in the processing, transporting and sale of agricultural raw materials and the products obtained from the processing of such materials -- 49.5 billion rubles*.

Based upon this data, an impression is created regarding the extremely low effectiveness of additional investments in agriculture. Actually, these figures reflect not the actual effectiveness of production, but only the existing mechanism for distributing and redistributing the surplus product created in agriculture among those branches engaged in processing its output.

---

* These computations were based upon materials obtained from the statistical year book "Narodnoye khozyaystvo SSSR" [USSR National Economy], for the respective years.

Agricultural production has always served and today continues to serve as an important source for savings and for growth in national well-being. In recent years, agricultural output and the products obtained from the processing of such output have constituted approximately 70 percent of the retail commodity turnover in objects of consumption, including in food goods -- 97 percent and in non-food goods -- 37 percent**. This means that agriculture is a source for more than two thirds of the national consumption fund. Can the investments in such a branch be ineffective in a society, the programmed goal of which consists of satisfying the requirements of the people to the maximum possible degree? The cause of the impression regarding the low effectiveness of investments in agriculture is to be found in the system of accounting, which presents the actual production results in a distorted form.

Actually, the present prices for agricultural products deviate in a planned manner below their cost. According to K. Marx, the cost and price for agricultural products in a society where market relationships take place and where a land monopoly exists as an object of management are determined by the production conditions on land tracts considered to be relatively poor in terms of fertility and location, but the operation of which is required for society.

The price for a product must compensate for the socially required production costs and furnish a definite amount of profit, thus making it possible to carry out expanded reproduction in all areas, including on relatively poor tracts. A surplus of net income obtained from more fertile and more suitably located lands takes on the form of differential rent and is withdrawn by the owner of the land. Under the conditions of socialism, where the owner of the land is the socialist state which also serves as the representative of society, the differential rent withdrawn by it is utilized in the interests of society as a whole.

Two methods are possible for transferring differential rent to the state.

The first -- direct rent payments. In this instance the procurement prices for the farming products can be established based upon the production conditions on the worst tracts of land. The surplus product obtained from tracts characterized by good fertility and an improved location (differential rent) is withdrawn in the form of direct rental payments. Under such a system, the entire surplus product can be taken into account at the place where it was created and, on this basis, it will be possible to determine the national economic effectiveness for the production of agricultural products in each zone. A mandatory condition for such a mechanism for withdrawing rent -- a scientifically sound system for the economic evaluation of land.

The second -- the indirect withdrawal of differential rent. In this instance, the procurement prices, differentiated according to the country's zones, are established according to the production conditions found not on the worst but on average land tracts, such that the prices for the agricultural products deviate in a planned manner below their cost. The differential rent is withdrawn in the form of the difference between the actual cost of the agricultural products and the procurement price for them.

---

* Computation based upon the statistical yearbooks "Narodnoye khozyaystvo SSSR" for 1971-1979.

The average procurement prices for agricultural products, differentiated by zones, precludes the possibility of taking into account the actual amount of surplus product at the place where it was created. The amount of the differential rent turns out to be veiled. At the same time, an objective evaluation of the true national economic effectiveness of production is not obtained. However, the state is forced to use this method for withdrawing rent, especially in view of the fact that an economic evaluation of the land has still not been carried out in our country.

In the case of industrial processing, the agricultural products are taken into account in the industrial costs, in accordance with the procurement prices and without taking the rent into account. The objects of consumption produced from them are sold to society at retail prices, that is, in accordance with the complete cost including rent. The difference obtained is turned over to the centralized net income of the state, mainly in the form of a turnover tax and also deductions from profits.

In recent years, as is known, a difference has developed between the increasing costs of the processing industry for producing certain food goods and the stable retail prices for them. The state is employing a system of subsidies for covering this difference and for compensating for the increasing production costs of the processing industry. However, by no means is this meant to imply that the differential rent is not taken into account in the retail prices. The state, for the purpose of maintaining high real incomes for the members of society, accepts responsibility for paying for a definite portion of the total retail price. The subsidies for meat, milk and certain other products are not intended to cover the losses incurred in their production, but rather their purpose is to bring the total retail prices for these products closer to their actual costs. In other words, the state, as the representative of society, appears alongside the consumers of food as an associated retail customer. In essence, these subsidies perform the same functions as payments to the population from the public consumption funds, a source of which is income from the state budget.

Thus, under the modern system of price formation, that surplus product which should have taken the form of rent and been transferred over directly to the state from agriculture is realized initially in the price for the final product by those branches engaged in processing the agricultural raw materials and subsequently, in the form of a turnover tax and deductions from profits, it is turned over to the state budget. It is for this reason that the proportion of the overall turnover tax turned over to the state by the food and light industry branches is so high. It amounts to approximately 80 percent.

Thus the surplus product which constitutes the material foundation for the differential ground rent is created in agriculture and is realized mainly in the processing industry. Thus it is taken into account as a result of the work of industry and not of agriculture.

Agricultural production, computed according to the existing prices for agricultural output, constitutes 14-15 percent of the gross social product of the national economy, 17-18 percent of the national income and approximately 7 percent of the surplus product of society realized. These figures do not conform to the actual status of affairs. Thus, when they were published, the USSR CSA stipulated prior to 1979 that a portion of the turnover tax should be considered as surplus agricultural product and this would change its share in the gross social product produced and in the national income [2]. Such an interpretation of the problem is correct and it is only to be regretted that as yet appropriate changes have not been introduced into the statistical accounting methods.

A computation of the amount of differential rent realized through the turnover tax system was carried out through a distribution of the net product and net income of agroindustrial production among its constituent branches, based upon the expenditures of reduced labor in its branches and taking into account the capital-labor ratio. Attempts were made to compute the complete cost of agricultural output through an analysis of the structure of the retail prices and other methods were also employed. Although the specific amount of rent accumulated in the state budget did not coincide completely for the various accounting methods, nevertheless a similar picture emerged from all of these methods.

In view of the modern informational base, we consider the following accounting method to be the most representative and most sound one.

The total amount of net product and net income produced in the branches of agroindustrial production is taken into account (excluding those industrial branches engaged in supplying the means of production). Based upon K. Marx's labor theory of cost, the total amount of the net product obtained from agroindustrial production is distributed among the branches proportional to the amount of reduced labor employed. The labor reduction is carried out according to coefficients employed at the USSR CSA (the complexity of labor in agriculture is assigned a coefficient of 1.0, labor in the food industry is evaluated at a coefficient of 1.06 and in the light industry -- 1.15). Subsequently the coefficients for a reduction in labor are corrected taking into account the capital-labor ratio. Land in a monetary evaluation is taken into account in the structure for the productive capital of agriculture.

Based upon such a computation, the total amount of differential rent accumulated in the state budget by means of the turnover tax system was determined (see Table 1).

Table 1

Differential Ground Rent Realized in Light and Food Industry (billions of rubles)

Indicator	Years					
	1965	1970	1975	1976	1977	1978
Total amount of turnover tax	38.7	49.4	66.6	70.7	74.6	84.1
Differential rent realized in the turnover tax structure, from the output of the light and food industry	24.0	30.4	37.3	38.4	41.3	46.3

A more thorough analysis reveals that the turnover tax is not the only channel for the redistribution of farming surplus product and this is borne out by the unjustifiably great inter-branch differences in the norms for surplus product.

Statistical information furnished by the USSR CSA makes it possible to compute the norm for surplus product based upon the entire material production of the country and its principal branches. This indicator, which expresses the ratio of the surplus product produced to the required product, is extremely important for analyzing the effectiveness of use of labor and the fund for labor payments and also for determining the reserves for raising it.

During the 1966-1976 period, the average norm for surplus product in material production in the USSR was 90.7 percent and in agroindustrial production -- 111.5 percent, including the food and light industry -- 278.7 percent and agriculture (including the private plots) -- 86.7 percent. (A computation was conducted for agroindustrial production taking into account the share of agriculture in the turnover tax, that is, the differential rent accumulated in the state budget through the turnover tax, excluded from the net income of industry and added to the net income of agriculture).

It turns out that for each ruble of labor payment, on the average for the country as a whole, 0.907 rubles of surplus product were produced in agriculture, including on the private plots -- 0.867 rubles, and in branches engaged in the processing of agricultural output, even without taking the turnover tax into account -- 2.79 rubles. Such a high norm for the surplus product is obviously explained by the fact that not all of the differential rent withdrawn in the form of procurement prices accumulates in the state budget through the turnover tax. A portion of it remains in those branches which process the agricultural output. According to computations, the proportion of rent in the net income of the light and food industry was as follows: in 1965 -- 5.5 billion rubles, 1970 -- 8.8, 1975 -- 11.0, 1976 -- 10.1, 1977 -- 10.8 and in 1978 -- 11 billion rubles.

A portion of these rental incomes, through the system of deductions from profits, is also assigned to the centralized net income of the state. In addition to planned channels for centralizing the rental incomes, non-planned methods are also employed for their redistribution; this is associated with the system of inter-branch commodity exchange. During the course of developing the country's national economy, the division of social labor is becoming more intense and this is complicating the branch structure of the national economy and bringing about an expansion of the scales of inter-branch exchange, carried out in the form of commodity-monetary relationships. In this regard, the prices for objects of inter-branch exchange are becoming a more important factor in connection with the inter-branch distribution of the net product produced and the cost accounting effectiveness of production in each branch.

The decisions handed down during the March (1965) Plenum of the CC CPSU were of exceptional importance for normalizing the conditions of inter-branch interaction. The implementation of the plenum's decisions concerning the creation of favorable economic conditions for expanded reproduction in agriculture led to a situation wherein, during a very brief period of time and by 1966, a price parity was achieved according to our computations in the economic mutual relationships between agriculture and industry. However, following a review of the wholesale prices of industry in 1967, the price balance achieved began to change, especially since 1970. This is traced very well in the dynamics of the price indices for the means of production and services provided for agriculture and in the procurement prices for agricultural products.

According to our computations, during the 1970-1977 period the prices for industrial means of production and for services provided for agriculture increased by 25 percent and for agricultural products -- by 13 percent. During this period, the uncompensated additional expenses of agriculture amounted to approximately 18 billion rubles.

Special emphasis should be placed upon the fact that an increase in the prices for the industrial goods and services made available to agriculture is taking place against a background of improved labor productivity and a reduction in the labor intensiveness of production in the industrial and service branches and this will lead to a reduction in the cost of the industrial products and services. Here it is appropriate to mention the words uttered by V.I. Lenin during a controversy with M.I. Tugan-Baranovskiy, to the effect that an improvement in labor productivity in the absence of a reduction in the cost of goods is absurd [V.I. Lenin, Complete Works, Vol. 46, p 29].

Work carried out by us on inter-branch balances underscores the fact that both the labor intensiveness and the cost of the industrial means of production supplied to agriculture are decreasing relatively. Meanwhile, the prices for them are increasing both relatively and absolutely. This means that a portion of the net output created in agriculture, during the course of inter-branch commodity exchange, is redistributed in favor of the industrial and service branches and there it serves as an unplanned source for savings. The situation that has been created can be analyzed using as an example the Goskomsel'khoztekhnika system. From 1965 until 1977, the overall volume of its production services (excluding trade) increased by a factor of 4 from a monetary standpoint and the amount of profit -- by a factor of 7.6. In particular, the volume of work carried out by repair workshops (in wholesale factory prices) increased by a factor of 2.8 and the profit -- by a factor of 5.5. The indicators for motor transport operations by enterprises of Goskomsel'khoztekhnika provide even greater contrasts. The volume of transport services (from a monetary standpoint) increased during these years by a factor of 6.3 and profit -- by a factor of 22.2. There can be no doubt but that this is the result of a non-equivalent exchange and one which leads to the redistribution of the net income of sovkhozes and kolkhozes and to using it in the interests of non-planned intra-branch savings.

It is very difficult to compute the full volume of the non-planned withdrawal of net product from agriculture, during the process of inter-branch commodity exchange, since the statistical organs do not maintain records on price changes for objects of inter-branch exchange and services. The inter-branch balances for the production and distribution of the social product and labor expenditures provide fine material for such analysis. However, the latter inter-branch balance was published only during 1972. A computation which we carried out using its materials revealed that the net product of agriculture, withdrawn in favor of the industrial and service branches, amounted to approximately 12 billion rubles in 1972. There is every reason for assuming that in subsequent years the non-planned inter-branch redistribution of net product created in agriculture will not decrease.

Based upon the methodological positions cited above, a computation was carried out for the complete amount of surplus product created in agriculture and the branch's share in the country's national income was determined.

Table 2

National Income Created in Agriculture (billions of rubles)

Indicator	Years					
	1965	1970	1975	1976	1977	1978
Net agricultural product realized	43.6	63.1	61.5	66.2	71.6	73.6
Differential rent realized in the turnover tax and the net income of industrial branches	29.5	39.2	48.3	48.5	52.1	57.3
Total	73.1	102.3	109.8	114.7	123.7	130.9
Proportion of agriculture in country's national income (%)	37.8	35.3	30.2	29.7	30.5	30.9

The volumes of net product withdrawn from agriculture during the course of inter-branch commodity exchange and realized in those branches which supply agriculture with the means of production and services were not considered in this computation owing to a deficit of information.

In order to determine the comparative effectiveness of a definite branch in the national economic system, it is still not enough to know the amount of new value created in it. In the final analysis, any production operation is a process of converting the resources of one form into the resources of another form. Thus it is important not only to present the amount of resources produced, but also the amount of resources consumed during the production process. Towards this end, the amount of national income consumed annually in agriculture was computed.

The following indicators are included in the structure of the national income consumed (see Table 3):

Net product realized in the branch (including population income obtained from the private plots).

Capital investments allocated for the development of agriculture. A portion of these investments is formed by means of the amortization deductions of sovkhozes and kolkhozes, accumulated for the complete replacement of productive capital. Since the amortization deductions represent an earlier created value and are taken into account in the material production expenditures, their value is excluded from the capital investments.

The participation of agriculture in the formation of the all-state funds for socio-cultural measures and in the expenditures for science, defense and state administration. These funds are created from the income of the state budget which, as is known, is formed by means of both surplus product and the secondary redistribution of the population's income (taxes and so forth). All of the branches of material production participate to an equal degree in the net product created in the formation of these funds, with a deduction for that portion created by a secondary redistribution of the private income of the population.

Table 3

Consumption of National Income in Agriculture (billions of rubles)

Indicator	Years					
	1965	1970	1975	1976	1977	1978
Net product realized in agriculture	43.6	63.1	61.5	66.2	71.6	73.5
Capital investments with a deduction for amotization savings	6.4	10.2	16.4	16.8	16.9	17.2
Participation in the formation of the funds for socio-cultural measures and in the expenditures for science, defense and administration	19.1	23.7	23.1	23.6	24.8	26.3
Subsidies for the payments for equipment and fertilizers	-	0.8	1.8	1.9	2.0	2.0
Proportion of agriculture in the consumption of national income, used for consumption and savings (%)	36.3	34.2	28.3	28.3	28.8	28.5
Excess of national income produced over that consumed (billions of rubles)	4.0	4.5	7.0	6.2	8.4	11.9

The subsidies from the state budget for covering the difference between the wholesale and wholesale factory prices for agricultural equipment and fertilizers.

Thus the computations reveal that the national income produced in agriculture exceeds the national income consumed in the branch. Hence the notions concerning the absolute unprofitability of agricultural production are incorrect and they give rise to the peculiarities of the mechanism of distribution and redistribution of surplus product, including differential rent and the existing system of statistical accounting.

The rates for reproduction in agriculture are exerting a substantial effect on the magnitude and rhythmic nature of growth in the country's national income. During those years in which the natural climatic conditions are unfavorable for farming and animal husbandry, as a result of which growth in the production volumes slows down or decreases, the rates of growth in national income decrease substantially. And conversely, during years marked by favorable natural-climatic conditions, they exceed the average level to a considerable degree. Here then we become involved with the most important task of achieving agricultural stability, alleviating and subsequently preventing the final production results from being adversely affected by unfavorable weather conditions.

The considerations mentioned and the computations are by no means meant to imply that the intra-branch production efficiency in agriculture is adequate. The most important party documents of recent years are directed towards making maximum use of the large reserves available for increasing the volumes of agricultural production and raising its efficiency based upon a more rational utilization of production resources.

Under modern conditions, special importance is attached to preventing losses in products produced both during the stage of agricultural production proper and also during the stages of its primary processing, transporting and storage. At the same time, agriculture is sustaining a considerable shortfall in output each year owing to insufficient production intensity and a predominance of extensive forms. For example, the feeding level for dairy and beef cattle remains below the genetic potential and this leads to a considerable shortfall in output; more than 20 percent of the dairy cows remain barren owing to various reasons, including nutritional factors. At the same time, the number of large-horned cattle is increasing and this is aggravating the feed deficit. In addition, it is being accompanied by increased production expenses that are not compensated by growth in the production volumes. The effectiveness of capital investments in land reclamation is still not sufficiently high, mainly owing to the fact that insufficient resources are being made available for developing the reclaimed lands and improving them to their planned productivity. We view such development in the broad sense, including the creation of reclamative farming.

The lack of development of the roat-transport network and the deficits in the volumes of the processing enterprises and storehouse economy are inhibiting proper specialization in the agricultural regions and the inter-regional exchange of products. This is resulting in the incomplete utilization of the biological potential of individual regions of the country, it is raising the resource intensiveness of production and hindering improvements in production efficiency.

The 26th CPSU Congress handed down a decision on the development and creation of a special all-round food program. This program calls for the bringing together of those tasks concerned with developing agriculture, its service branches, industry, procurements, storage and the transporting and processing of agricultural products and the development of the food industry and the trade in food goods. The food program, by orienting all of these branches towards the maximization of the final result, will make it possible organizationally to join them together in a single production-economic system of the agroindustrial food complex. Naturally, this will require new approaches for developing a rational production structure for the entire agroindustrial complex and a structure for the production apparatus of agriculture. Thus, while retaining in the future high rates of growth for capital investments in agriculture, a more thorough study should be undertaken of their structure and the more important and priority trends for their use singled out for each period in the future. At the present time, this includes those investments which are creating the true base for actually raising the intensity of production. Included among them are: first of all, those investments aimed at preventing losses in the agricultural products produced, that is, the development of the logistical base for the final stages of production of the final product and ensuring that it is of high quality when delivered to the consumer; secondly; investments aimed at the development and economic mastering of reclaimed lands and raising them to their planned productivity through proper exploitation; thirdly, a change in the structure of capital construction, especially in animal husbandry, an expansion in the reconstruction of animal husbandry farms involving equipment modernization and a limitation placed upon the construction of costly animal husbandry complexes which involved an excessive use of materials; development of the production of construction materials from local raw materials for the purpose of lowering the materials-intensiveness and the cost of construction. At the same time, we are of the opinion that measures should be undertaken aimed at limiting growth and, when necessary, reducing the number of dairy cows on individual farms. All of the accumulated scientific potential and leading experience in the sphere of cattle husbandry must be directed in every possible way towards raising the rates of growth in the productivity of the dairy and beef cattle and preventing barrenness in the cows.

Taking into account the experience accumulated in the USSR and in countries having similar territorial conditions, a more decisive and more persistent change must be carried out over to the planned formation of specialized zones for the production of the principal marketable agricultural products. It is obvious that one priority trend with regard to the use of investments must be that of creating such zones. This will make it possible, within the program for production distribution, to convert over to the principle of locating the production of each type of product in those regions having the most favorable natural-climatic conditions for such production. Such an approach will make it possible to make maximum use of the biological potential of nature. Naturally, this difficult task requires time and considerable resources, since its solution must call for the all-round development of those regions which will ensure a balanced logistical base for the production of agricultural products and for the processing, storage and transporting of such products to the consumption areas. At the same time, the social infrastructure which ensures the material living conditions for the population must be developed.

Extreme importance is attached to raising the efficiency of agricultural production, improving the structure of the productive capital of agriculture and, in particular, the technical means of labor. The deliveries of equipment to agriculture are increasing in a systematic manner and will continue to increase in the future. However, industry has still not mastered a system of machines for farming or animal husbandry and instead of supplying all-round systems it is providing only individual fragments of systems. The means of labor being supplied is unbalanced in terms of the quantities of the different types of equipment and their parameters. Many types of products being produced by the chemical, microgiological and mixed feed industries do not meet the modern standards. All of these factors serve to preclude the possibility of achieving all-round mechanization of production operations, they result in the continuation of a high technological labor-intensiveness in farming and animal husbandry, they restrain growth in labor productivity, they require the continued use of an excessive amount of manpower in agriculture and they restrain improvements in agricultural efficiency. It is obvious that the time is at hand for ensuring that the food program calls for the changes required in the structure of those branches which supply agriculture with the means of production. The modern production potential of these branches is fully adequate for eliminating deliveries of individual means of labor and converting over to the production and delivery of complete technical-technological systems that will ensure the complete mechanization of production operations, lower its labor-intensiveness, improve soil fertility, raise the productivity of the plants and animals and reduce overall production expenditures.

Just as in the past, one of the most important trends with regard to further improving production efficiency in agriculture and throughout the entire agro-industrial complex is that of improving the system of planning and economic stimulation. The principal directions to be followed for solving this task were formulated during the July (1978), November (1979) and October (1980) Plenums of the CC CPSU and in the documents of the 26th CPSU Congress. At the APK [agro-industrial complex] level, these tasks amount to the following: ensuring that the interests of each branch are not infringed upon, restricting their economic isolation and orienting their activities towards maximization of the final results of agroindustrial production on the whole. Under the existing conditions, this requires an appropriate system of centralized control headed by an inter-departmental administrative organ, the decisions of which with regard to long-term and short-term plans, the structure of agroindustrial production, the distribution of resources and regulation of inter-branch relationships are directive in nature. At the same time, it will be necessary to ensure a maximum expansion of direct contractual contacts between partners in agroindustrial production, thus promoting greater economic initiative and enterprise among all elements of the APK in the rational use of production resources.

In agriculture, special attention should be given to improving the role played by social factors in raising labor productivity and production efficiency. Towards this end, a conversion should be carried out from the system of stimulating over-fulfillment of the state procurement plans to a system for stimulating constant growth in the production of products called for in the state plan and in direct contracts calling for the delivery of such products to the system of inter-farm cooperation and agroindustrial integration.

As pointed out in the decisions handed down during the 26th CPSU Congress, the economic leaders must bear greater personal responsibility for the final production results, with the system of material incentives being combined with an efficiently operating system of material sanctions. Over a period of 15 years, a system of wages for machine operators has been employed at agricultural enterprises, for the final results of their labor, known as the job contract plus bonus system with periodic advances. When organized correctly, it promotes growth in labor productivity and lowers the labor-intensiveness of production. There is every reason to assume that greater dissemination of this system and the advancement of its basic principles from the level of primary labor collectives to the collectives of production enterprises will serve as a powerful impetus for increasing the volumes of production and ensuring the dissemination of labor-saving technologies in the organization of production operations.

Thus the country's agriculture continues to serve as an important source not only for the conumption fund but also for savings in the country's national economy. The realization of reserves for expanded reproduction in the agrarian sector and savings achieved in the consumption of resources through improvements in the organization of production are creating favorable opportunities for intensifying this function and improving the socio-economic efficiency of agriculture.

BIBLIOGRAPHY

1. Gorbachev, M.S. KOMMUNIST, No. 11, 1980 pp 36-49.

2. "Narodnoye khozyaystvo SSSR v 1978" [USSR National Economy in 1978], Moscow, 1979.

3. Sorokin, G.M. "Meteorologicheskiye osnovy izmereniya ekonomicheskoy effektivnosti" [Meteorological Principles for Measuring Economic Efficiency], Moscow, 1979.

4. Tikhonov, V.A. VOPROSY EKONOMIKI [Economic Problems], No. 8, 1980, p 7.

COPYRIGHT: Izdatel'stvo "Kolos", "Vestnik Sel'skokhozyaystvennoy Nauki", 1981

7026
CSO: 1824/425

AGRO-ECONOMICS AND ORGANIZATION

MOLDAVIAN PRIVATE PLOTS IMPORTANT LIVESTOCK PRODUCERS

Kishinev SEL'SKOYE KHOZYAYSTVO MOLDAVIl in Russian No 5, May 81 pp 53-55

[Article by I. Popov, chairman of the association for the purchase and sale of animal husbandry products of the Council of Kolkhozes Moldavian SSR: "An Important Reserve"]

> [Text] The animal husbandry products which are produced on the personal subsidiary farms of kolkhoz workers, employees, and other citizens are an appreciable contribution to the country's food balance. Moreover, they are produced without large capital investments. However, as was emphasized in the decree of the CC CPSU and Council of Ministers USSR "On Additional Measures to Increase the Production of Agricultural Output on the Personal Subsidiary Farms of Citizens" (1981), far from full use is being made of the possibilities which exist for this.

The measures which have been undertaken in recent years in the republic to improve breeding work and also the intensification of work processes in swine breeding and poultry breeding have brought about substantial improvement of the reproduction and growth of swine herds both on public farms and on the personal subsidiary farms of the population. In recent years 2-2.2 million piglets have been obtained every year at industrial type commodity reproducers and on kolkhozes and state farms, and 58-60 million pullets have been obtained at state poultry factories. This has been making it possible to provide for the needs of commodity production and to sell a large amount of young stock to the population. During the last three years 330,000 to 435,000 piglets have been sold every year, while in 1980 462,000 piglets and 19-22 million pullets were sold; moreover, for the most part these were meat breeds and lines.

The decree of the republic's Council of Ministers "On Measures to Improve the Procedure and Increase the Amount of Purchases of Livestock and Poultry from the Population" which was adopted in June 1978 was an important measure which had a large positive influence on increasing the interest in developing subsidiary animal husbandry in the republic. This document permitted the association for the procurement and sale of animal husbandry output of the republic's Council of Kolkhozes to perform the counter sale of combined feeds from state resourses for livestock and poultry purchases from the population in the following amounts: two kilograms of combined feeds are sold for a kilogram of live weight of cattle, and three kilograms of combined feed for a kilogram of live weight of pork. In addition, the ispolkoms of the rayon Soviets of People's Deputies were ordered to organize the preferential sale of many scarce goods (construction materials, motorcycles, automobiles, and others) to citizens who sell animal husbandry output to the state.

Exceptionally important measures were carried out last year for the mutually advantageous cooperation of kolkhozes, state farms, kolkhozes workers and sovkhoz workers in raising and selling poultry meat:

--free supplies of day-old young stock for citizens who have joined cooperatives

--the issuance of two kilograms of combined feeds for every delivered kilogram of live goose and of three kilograms of combined feed for every kilogram of chicken and duck:

--the punctual delivery to the population by farm transport of the allocated feed and construction materials;

--payment for the raising of young fowl when it is delivered to a kolkhoz or state farm (for a kilogram of live goose--.5 rubles, chicken--one ruble, duck--.6 rubles);

--the return to the kolkhoz or sovkhoz of 70 percent of the fowl which have been received for raising.

Local government and agricultural agencies, and also farms and other organizations perform work to explain to the citizens the importance of raising livestock and fowl on personal farms and activate all of the possibilities and reserves that exist for this purpose.

A great deal of attention is being devoted to the development of swine breeding on private farms in Kagul'skiy, Chadyr-Lungskiy, Rezinskiy, Suvorovskiy rayons. Last year alone in each of them more than 18,000 piglets were sold to the population. On the subsidiary farms of the kolkhoz and sovkhoz workers of Orgeyevskiy and Rezinskiy rayons 11,000 to 12,000 swine were fattened. A large number of piglets were sold to the population in Brichanzkiy, Faleshtskiy, and Floreshtskiy rayons.

Sheep herds have become somewhat larger on private farms than in past years. For Moldavia this is a traditional branch whose products are in great demand. The population sells wool and astrakhan to the state. The largest sheep herds (35,000-41,000) are maintained by the kolkhoz workers, workers, employees, and other citizens of Kagul'skiy, Kantemirskiy, Leovskiy, Komratskiy, and Chadyr-Lungskiy rayons.

In ten of the republics's rayons there are from 5,500 to 7,500 producing cows on private farms. The largest numbers are in Drokiyevskiy and Ryshkanskiy rayons. The peasants are issued the appropriate containers, milk collections which are convenient for the citizens have been organized, and payments for output are performed punctually with them. Farms and also livestock procurement points conclude advance agreements with all of the citizens for the sale of livestock and for feed supplies, and other forms of material interests are also stipulated.

The livestock procurement points work in close contact with farms and rural Soviets and provide the citizens with transportation assistance in the delivery of livestock and of the combined feeds due to them.

However, there are still shortcomings and unsolved problems in this important matter. Above all, not all of the kolkhozes and state farms (especially the state poultry factories and incubators stations) cover the full needs of the population for young livestock and poultry and, moreover, not all of the young stock which is sold is of good quality. Every year many farms and associations do not fulfill their assignments for the sale of young stock to the population and, unfortunately, no one, in essence, bears any responsibility for such omissions.

The organization everywhere of the artificial insemination of all of the cows and ewes on private subsidiary farms with the semen of the prized producers of the republic's state breeding stations is an exceptionally important measure in the qualitative improvement of the herd. Unfortunately, the population is sold only a negligible number of pedigreed calves. Our sheep and rabbit breeders have large complaints against the Moldavian Association For Livestock Breeding which also does not sufficiently satisfy the needs of private farms for pedigree young stock, especially sheep and rabbits. Also in great debt to them are the workers of our state incubator stations which have the task of supplying private farms with young poultry.

Of course, the problem of private animal husbandry is both difficult and complex. Many factors, including social and socio-demographic factors and so forth, influence the size, specialization, and marketability of a private farm. This is why clichés and simplified approaches are intolerable here. It has to be taken into account, for example, that the rural population has a tendency to decrease and is striving to have more free time. This means that it is necessary to try to increase the productivity of animals on private farms. Measures have to be taken to see to it that the number of farms and of livestock are not decreased on account of artificial barriers and of the lack of zeal and mismanagement of those whose duty it is to show the greatest interest here.

There is experience which is worthy of immitation both in our country and in the fraternal union republics. One of the important, in our view, measures to further develop private animal husbandry and increase its effectiveness is the creation (on the example of other areas in the country) at every rural Soviet of animal husbandry partnerships which are endowed with definite managerial and organizational rights. The experience which has been gained in the republic by the societies for rabbit breeding, silk breeding, and horticulture may serve as an example.

Thus, there are successes in private animal husbandry, but there are also quite a few problems. They have to be solved in a persistent and planned manner. One of them is the necessity for seeing to it that private herds are supplied with qualified and conscientious herdsmen, especially since there are fewer and fewer people who wish to do this work. But in our day no less training is demanded from this person than from the operators of animal husbandry complexes. A herdsman is in essence a technologist and an operator in the private herds. He has to be trained and his work has to be well paid and provided with incentives.

An exceptionally important measure is the universal and timely conclusion of agreements between procurement organizations and farms and citizens (preferably with partnerships) for the delivery of animal husbandry products, including the stipulation of the quantity and quality of the output, delivery dates, bartering conditions, the sale of feed, the countersale of scarce goods, and so forth. It is possible that the use of a system of advances to citizens for future procurements of animal husbandry products should be begun.

The conclusion of agreements and the granting of advances will be a new organizational-economic basis in this important matter and will create the possibility for an improvement of procurements of output from the population.

The system of procurements is in need of improvements in other aspects also. For example, the need arises to organize temporary mobile procurement points equipped with transportation and operational hours which are convenient for the population.

The republic's animal husbandry specialists are struggling to achieve in 1981--the first year of the Eleventh Five-Year Plan--the highest productivity indicators and the largest amounts of animal husbandry production. It is a duty of farm leaders and technologists and also of rural citizens to insure the largest addition of animal husbandry products in private farms also, and to thoroughly promote the successful accomplishment of the tasks put forward by the 26th Congress of the CPSU.

COPYRIGHT: Izdatel'stvo TsK KP Moldavii,
Sel'skoye khozyaystvo Moldavii, 1981

2959
CSO: 1824/397

LETTERS REVEAL DIFFICULTIES OF PRIVATE PLOT DEVELOPMENT

Moscow SEL'SKAYA ZHIZN' in Russian 22 Aug 81 p 2

[Article by O. Vlasova: "Fodder for the Brown Cow"]

[Text] Quite possibly the most troublesome daily summer concern of the rural family that maintains a cow, sheep or other livestock is procurement of hay and other fodder. With fodder, a family will have milk and meat both for itself and for sale.

The business of providing personally owned livestock with fodder is a matter that applies not only to kolkhoz members and sovkhoz workers but also to the heads of the farms where they labor. It is justly said: a private farm constitutes a common concern. At the same time, the approach required by the party to the solution of this vitally important question is far from everywhere made correctly. This is shown by letters reaching the editorial office.

During the summer, the chief food of both cow and calf as is well known is pasturage grass, a milk-producing and at the same time easily accessible fodder. But, as it turns out, it is not available to all cattle owners. Here are a few indications obtained by the editors.

"This is being written from Moskovskiy Village in Tyumenskiy Rayon of Tyumenskaya Oblast. We work in a rural locality, many as milk maids and calf tenders. They have provided us with good living quarters. It is possible to live and to work. But our problem is that we lack the conditions for maintenance of private stock." The signatures are those of Turenkova, Bernikova, Mamontova and Kvashina.

The dwellers of Zonal'nyy village in Biyskiy Rayon of Altayskiy Kray (22 signatures) wrote that their conditions in no way provide for the maintenance of private stock. Whereas in prior years, pastures, even though they were poor, were assigned to them, at the present time, the top administrators of the experimental selection station have completely deprived their cows of pasture land.

Our oldest subscriber, an inhabitant of Chesma Village in Chelyabinskaya Oblast named P.P. Dolgopolov says the following: "You write that it is essential to develop subsidiary farming in every possible way. But consider the fact that in recent years, pastures have been plowed up to the very edge of our garden patches. There is no place to let a calf out, and the herd is kept in the stadium. With each year, hayfields are being reduced, and today, instead of three herds, as was formerly the case, there are two, and incomplete ones at that."

In attempting to retain their livestock, rural inhabitants are undertaking collective expenditures for the creation of more productive pastures. This is what the inhabitants of Glyaden' Station in Krasnoyarskiy Kray did. Such a useful initiative calls for support. But the local administrators collected four years ago money for sowing perennial grasses on one of the fields, but they did not let them have the land. "The pasture season is at its height," it says in the letter, "but our cattle stay in their pens."

Is it really possible that kolkhozes, sovkhozes and local forestry organizations are unable to allocate pasturages for livestock owned by citizens? The answer is no. The authors of almost every letter point out that such possibilities exist. Moreover, there are many cases where pasture land is not used for years. The inhabitants of Ternovoy Village in Inzhavinskiy Rayon of Tambovskaya Oblast write in particular about this.

Here is a case reported by A.I. Shemonayev from Lopatka Village in Bessonovskiy Rayon of Penzenskaya Oblast. The local forests have large clearings that remain empty and useless becuase it is forbidden to pasture cattle there.

Ye.V. Buchina from Belinskiy Fruit Nursery of the same Penzenskaya Oblast writes of the same kind of mismanagement of land areas. "You should look at our places," writes this elderly worker, "should not cows and pigs be maintained here? But the grass is not used, and the land is being covered over with weeds."

Of course, not all top administrators act in such a heedless manner in regard to the needs of kolkhoz members and workers with personal livestock wishing to fatten it. The same Ye.V. Buchina, after getting nowhere with Comrade Kusakin, the director of the fruit nursery, turned to neighboring Pobeda Kolkhoz. Kolkhoz chairman Comrade Razin met her with great understanding, concluded without delay an agreement for fattening of her calf and piglets and allocated the necessary fodder. "If there were only more such directors!" she says in ending her letter.

Unfortunately, such instances are few. Difficulties with pastures have been written about to the editors by V. Kuptsov from Lopareov Village in Galichskiy Rayon of Kostromskaya Oblast, Ye.V. Shumova from Progress Kolkhoz in Korochanskiy Rayon of Belgorodskaya Oblast, A.I. Zamyatin and a group of his fellow villagers from Svetlyy Workers Settlement in Kotel'nichskiy Rayon of Kirovskaya Oblast, Z.M. Zakharova and inhabitants of Doschatoye Village in Vyksunskiy Rayon of Gor'kovskaya Oblast and others.

At the same time, the editors' mail includes reports and a formal attitude by a number of heads of farms in regard to allocation of fodder for private livestock.

"We live on the edge of the city of Roslavl' in Smolenskaya Oblast," writes female worker M.P. Blashenkova from Roslavl' Flax Plant, "we keep cows and turn milk over to the state. Our plant has fields near ricks of flax straw. But they give us little hay, enough for half a cow."

Another of our readers V.S. Shvedchenko, from Khorosheye Village in Slavyanoserbskiy Rayon of Voroshilovgradskaya Oblast reports that the local administrators do not permit cutting hay even at places that present difficulty of access.

The crude violation of the existing procedure of setting aside hayfields is described in a letter by N.M. Perevoznikova, a female kolkhoz farmer from Sadovoye Village in Prikubanskiy Rayon of Stavropol'skiy Kray. It turns out that she was deprived hayfield allocation because she transferred with her husband to work at the interkolkhoz association for fattening of cattle, a shareholder of which was Kolkhoz Mayak. Despite the directives of the rural soviet, A.M. Berezin, the chairman of this kolkhoz, insists on his own way.

A justified resentment is voiced in a letter by F.I. Shumilov, a very old kolkhoz member of Kolkhoz imeni Dzerzhinskiy in Gorodetskiy Rayon of Gor'kovskaya Oblast, who has worked for 40 years at this kolkhoz. Five years ago when he went into a deserving retirement, he decided not to stop his work as a peasant and acquired a cow, but was obliged to sell it shortly thereafter. And he was not the only one. "Pensioners," the veteran writes, "do not keep cows because they are shortchanged when it comes to hayfields. They are alloted plots where you can cut 5-10 poods of hay, while cows require 100-120 poods."

What do all these letters attest to? First of all, to the fact that far from all heads of kolkhozes, sovkhozes, forestry operations, rural soviets, even rayon organizations, have made the proper conclusions in regard to the directives of the party and the government on the development of private subsidiary farming by kolkhoz members, workers and employees. Instead of implementing measures for increasing the output of agricultural products on these farms, they simply turn their backs to them and sometimes even assume the dangerous path of administration and unjustified restrictions.

At the same time, local directors, as provided by the decree of the CPSU Central Committee and the USSR Council of Ministers on supplementary measures for increasing the output of agricultural products on private subsidiary farms, are called upon to help kolkhoz members, workers, employees and other citizens in providing feed for their livestock and poultry.

Orchards, vegetable gardens, poultry and livestock belonging to workers are a part of our mutual wealth, an additional source for increasing resources of meat, milk and a number of other products.

7697
CSO: 1824/433 END

END OF
FICHE
DATE FILMED
21 Sept 1981